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THE Country GUIDE

11 AUG 1959

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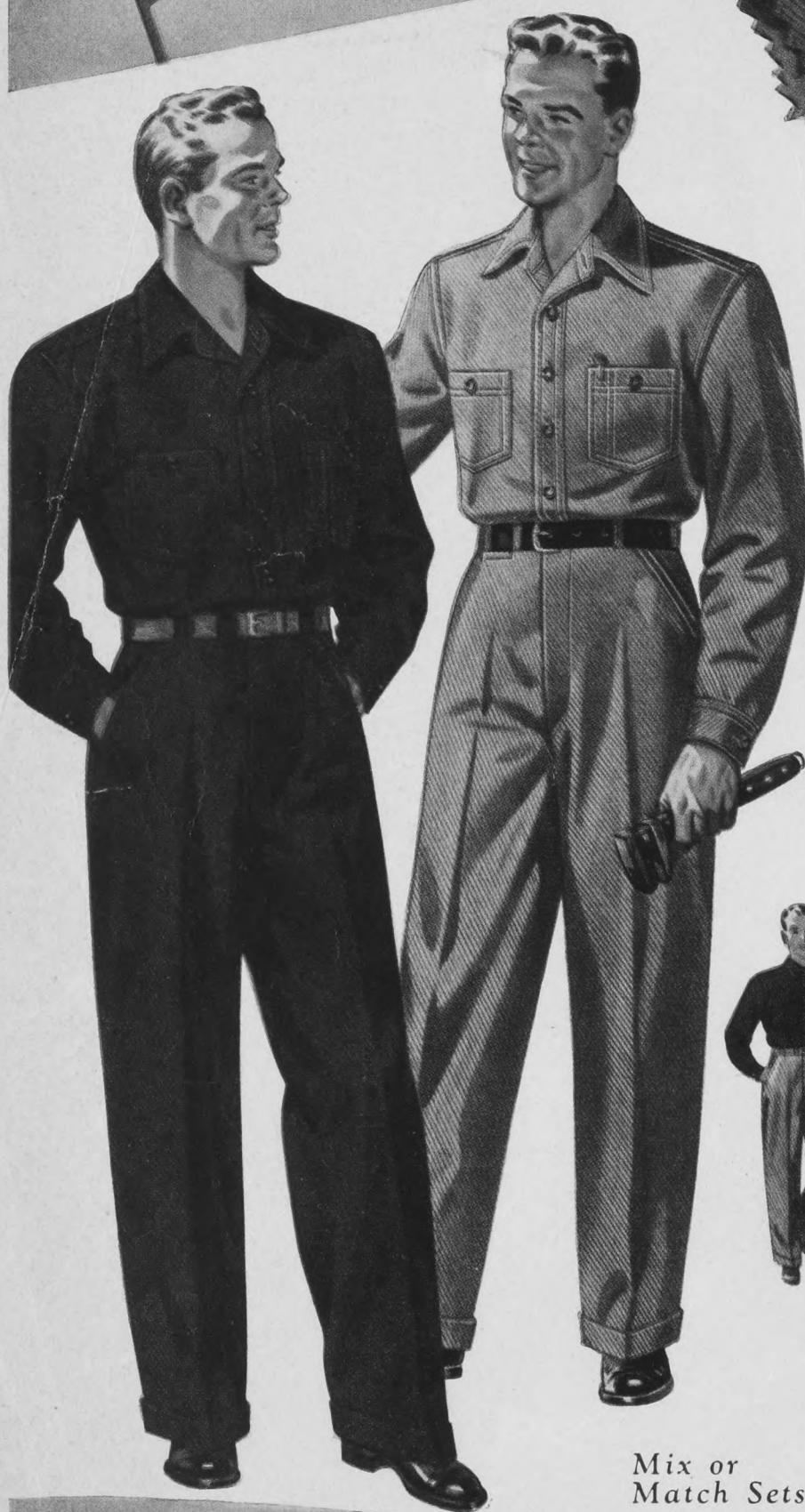
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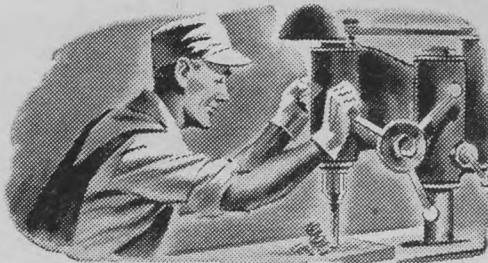
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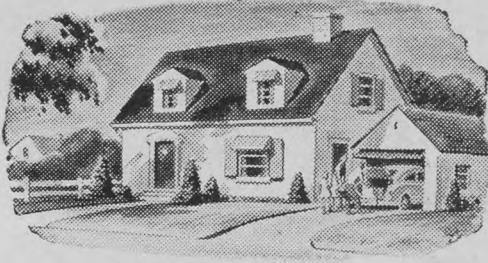
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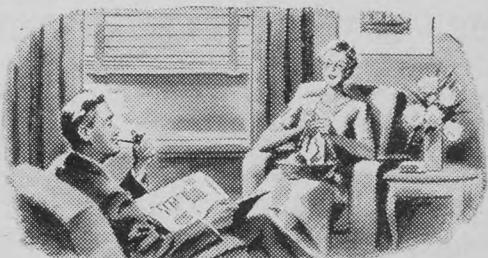
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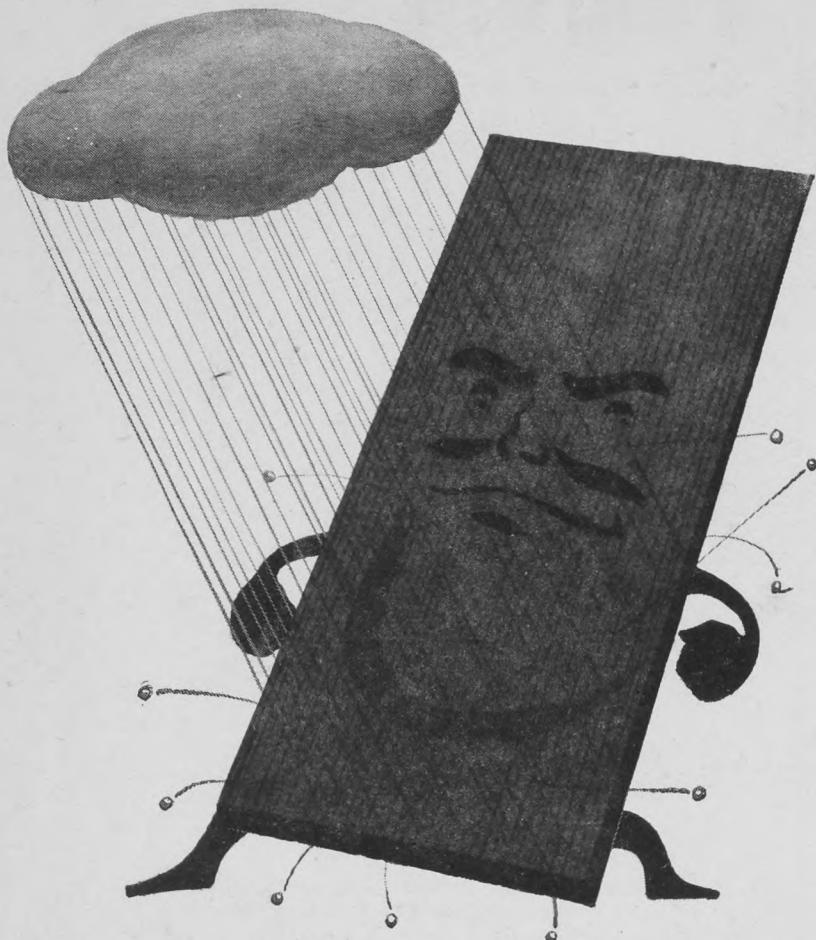
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Under The Peace Tower

I KEPT the death watch on Mackenzie King.

While the butterflies danced, the hummingbirds darted, and the hollyhocks swayed like hula dancers, the great man was slipping away upstairs. The scene was a summer chair under a maple tree at Kingsmere, summer home for almost half a century of William Lyon Mackenzie King.

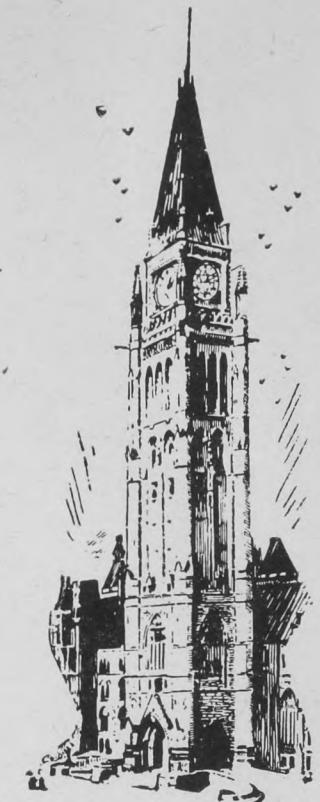
It was a sweltering Saturday afternoon and nobody was in the parboiled Capital that didn't have to be here. I got a quiet tip-off that this time it was really the end for Canada's former Prime Minister. I jumped in my car and picked my way as best I could along a highway throbbing with noisy picnickers in even noisier trucks. I had rather expected that a cordon of Mounted Police would be surrounding King's summer home at suburban Kingsmere, and that a mob of the curious, as well as many of his old friends, would be at his summer home. As it turned out, your Country Guide correspondent was all alone.

Not entirely all alone in the ultimate sense, it is true, for Fred McGregor was with him. Mr. McGregor, recently in the headlines when he tangled with the flour milling industry in his now famous McGregor report, was rightfully at King's side. For not only has he played latter day Boswell to Mackenzie King, but he was King's secretary when the PM first took office in 1921. But their association actually goes back to 1909, and McGregor had been King's man all the way. With the former prime minister was Rev. Ian Burnett, minister of St. Andrew's Presbyterian Church, where Mr. King had worshipped so devoutly for so long. Indeed, it was supremely fitting that the one man in the room with him should be his spiritual adviser, because no man in public life has had a more profound piety than he.

What I mean in King being alone is this: one associates so eminent a death as one surrounded by a houseful of people, important functionaries hovering in the offing, a shoal of relatives mourning nearby, a cluster of newsmen keeping a death watch, and a cordon of the curious watching in the offing. But that tranquil afternoon, there was only the clergyman upstairs, the old friend downstairs.

As I sat under a tree in my shirt-sleeves, wondering if even then Mr. King was breathing his last, I could not help feeling that King was dying as he lived, alone. Seems to me that no other great man in Canada could have passed away so all-by-himself.

Fred McGregor had been working on King's memoirs. The former prime minister used to sit in bed from noon onward, and dictate to a relay of secretaries. McGregor, whose hard, dry prose has neither stimulus nor color, never felt himself competent to put the memoirs in readable form, but his orderly mind was extraordinarily capable of getting them in order in the same way an auditor can take a lot of odds and ends and make it into sense. Under this same tree out on Mr. King's lawn Fred McGregor admitted the material was wonderful, but he speculated at the same time who was going to put it all together.



By now you will have read in 50 different places and heard on the air 50 different times about his death. I feel, however, that nobody will know all about Mackenzie King until perhaps 20 years past his death. History offers a perspective that frequently reveals a man in a way it was not possible to do when he was alive. For instance the common man knows much more about Abraham Lincoln today, 85 years after his death, than the wisest common man did the day after he was shot. Sir John A. Macdonald stands much more sharply revealed in 1950 than he was when he died in June, 1891. Laurier's stature is more sharply delineated now than it was at his demise in March, 1919. Some little chubby-faced child, walking barefoot over the prairie to a one-room school right now, will know more about Mackenzie King when he takes his B.A. some 20 years hence than the wisest of us today.

I HAVE known Mackenzie King for a long time. I am not vying with anybody as to how well I knew him. To me he is the greatest man Canada has produced since Confederation. I am sure historians will identify this as the Mackenzie King era.

This Canada of ours has been a difficult country to run because there are so few things on which we agree.

By contrast there are too many things on which we have too little common viewpoint. Just take one example. Say a man and his wife are used to eating lunch at the Bay store in Winnipeg. Transport him to Chicoutimi. Let him be served by a waitress who speaks no English, with a French menu. His paper will not be the Tribune or Free Press but maybe Montreal's devout Devoir or possibly Le Progress de Chicoutimi. Outside, convents and churches will dominate the scene, have the best locations, tower in size over all else. Will this to our erstwhile Winnipegger seem like the same Canada it was when he

(Please turn
to page 38)

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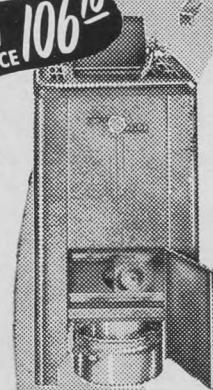
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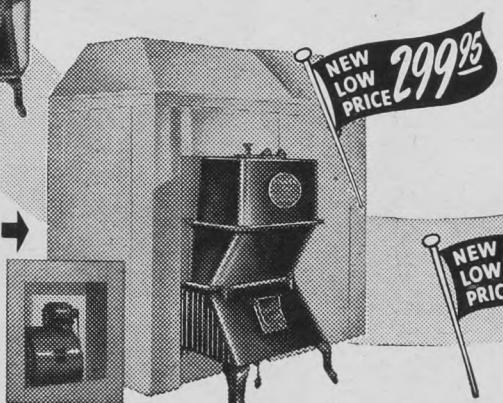
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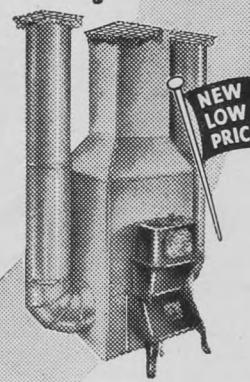
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KOREA

Land of Strife

by
RALPH HEDLIN

IN school many of us tended to think of geography as a rather dull subject. We learned that London is the capital of England, that Regina is the capital of Saskatchewan, that Canberra is the capital of Australia, and Stockholm the capital of Sweden. Sometimes we thought of it as rather vaguely interesting, but we did not stay awake nights thinking about it.

I expect that geography, and history too, are still taught in the schools. Those of us who are getting past the school age are finding that we get a lot of history and geography in our day-to-day reading of periodicals and press, and by listening to the radio. When Mussolini moved his forces against the Ethiopians in 1935 most of us did not know where Ethiopia was, and we certainly did not know or care that Addis Ababa—a name right out of the Arabian Nights—existed. By the time that Mussolini gambolled away across the frontiers of the hereafter, we were familiar with many more foreign names. We learned of the Mannerheim Line in Finland, and became familiar with that small and much abused country. Berlin, Coventry, London and others were on everybody's lips and in everybody's experience. To this number were added Singapore, Hong Kong, Pearl Harbor, Guadalcanal and a thousand more. Ordinary Canadian conversation took on an international flavor and young and old alike became familiar with many of the countries and cities of the world.

A few short weeks ago Korea meant no more to the average western Canadian than, for example, the Falkland Islands lying east of Argentina near to Cape Horn. The sudden movement of Communist forces into the southern, democratically organized part of Korea, punctuated by the rattle of typewriters and the click of camera shutters, elevated this remote country into a position where it received the attention of us all. We learned of Seoul, the capital city, we learned of the 38th

parallel, and we recollect that this was a country the unhappy populace of which had been held down by the Japanese for, more or less, the last 40 years.

One of Korea's greatest problems and the cause of its greatest hardships has been the fact that its location is strategic. In terms of present-day world politics, being strategically placed means that a country is so located that none of the big powers want any other to be stronger in the area than they are themselves. A glance at the map will reveal that strong enemy forces entrenched in Korea could be a considerable threat to any one of several countries. It is the springboard from which Japanese forces leapt into



[International News]

A Korean farmer working his rice paddy with the standard source of power.

Manchuria in 1931; it lies at Russia's back door; Japan lies a few short miles across Korea strait; powerful enemy forces British and American interests in Korea could jeopardize in the Orient; and it is strategically located with respect to China. All of these aspects of its location have combined to keep its powerful neighbors very interested in Korean problems.

FOR centuries Korea has had to struggle to gain and keep her independence. As early as 1231 the Mongols invaded her territory, and forced the Koreans to provide a fleet of vessels for the Mongol invasion of Japan. These combined Korean and Mongol maneuvers met with two disastrous defeats and, losing heart, the Mongols departed leaving the Koreans to their own devices. In 1592 the great Japanese general Hideyoshi decided that he was going to conquer the world. He sent an army of 300,000 men to Korea, where they met with little opposition. However, a certain Korean admiral, Yisunsin, invented an ironclad warship that the Japanese could neither burn nor board. With a fleet of these "secret weapons" he attacked a huge Japanese flotilla and won a battle that successfully concluded the Japanese dreams of aggression.

The Manchu invasion of Korea in 1627 was a brief spasm of misery. The real problem put in an appearance much later. In 1884 Japan resolved to eliminate Chinese influence in Korea. This they succeeded in doing, and for all practical purposes the Japanese were in control of Korea from that date until their defeat at the hands of the Allied forces in 1945. It was in 1910 that the Japanese formally annexed Korea and made it a part of Japan. In 1945 the

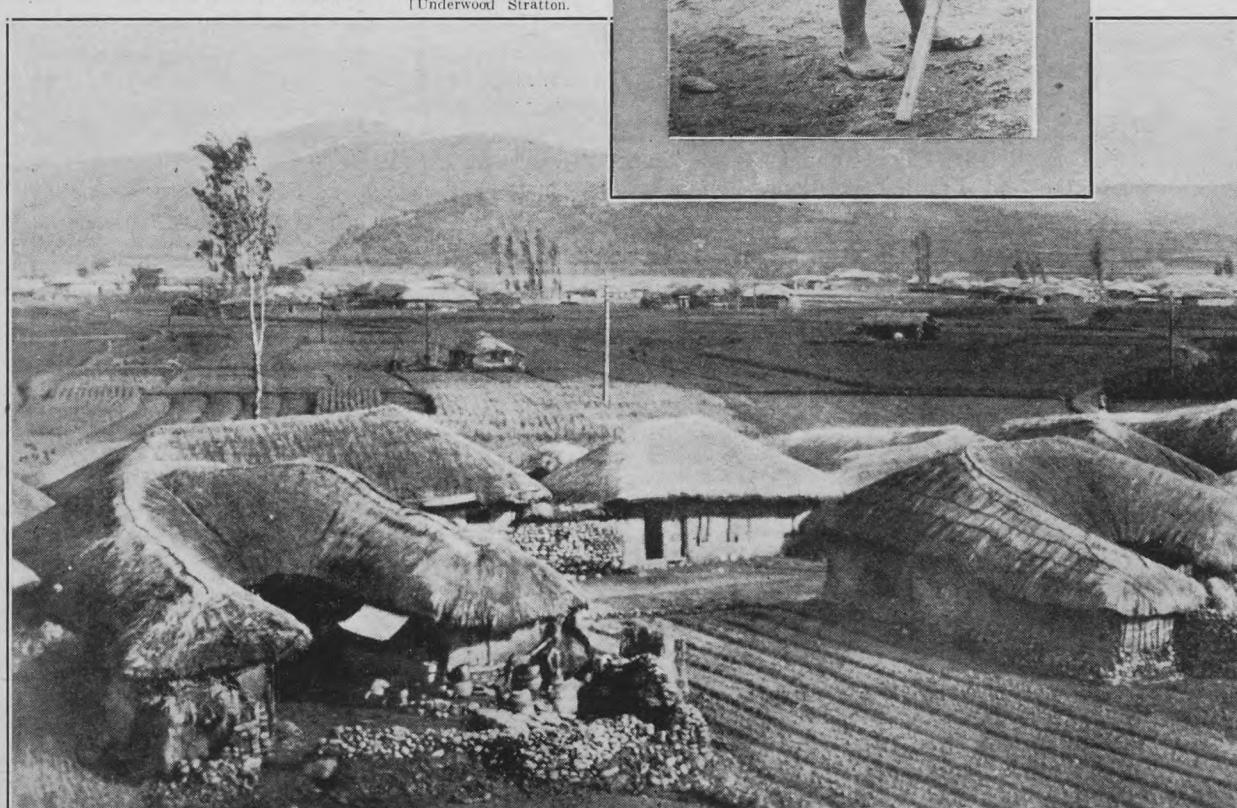
American forces came in from the south and the Russians from the north, meeting at the 38th parallel. This parallel became another panel in the "iron curtain" with the Russians imposing communism to the north and the Americans fostering democracy to the south.

This arbitrary division left Korea in an intolerable economic and political situation. In the northern half were located most of Korea's coal mines and heavy industries—steel and iron, aluminum and magnesium, chemicals and synthetic fertilizer. The American zone included some coal mines, paper mills and textile factories, but the area was predominantly agricultural. The agriculture in the south had been built up in fairly large part on the strength of commercial fertilizers from the industrial north, and the division removed this source of readily available fertilizer and reduced agricultural production by 30 per cent. In a score of ways the arbitrary division has made difficult the operation of the country.

At the time the communists moved down from the north the South Koreans were rapidly resolving many of these problems. They were getting their railways back to regular operating schedules; short extension lines were being built to bring the tungsten, coal and other minerals of the east coast effectively closer. (Please turn to page 25)

Right: A Korean worker carrying a drum of gasoline weighing 450 lbs. [Keystone.

Bottom: A typical Korean village with horseshoe-shaped houses that shelter both men and beasts on both sides of a traffic ribbon. [Underwood Stratton.



Ballet of the Bees

by
LEONARD LAWTON

German professor's observations find practical application in inducing bees to pollinate crops which might not otherwise benefit by their lively industry

WE'VE learned the oldest language in the world. Strange it took so long for it was time-honored before any ancestor of ours made the first gesture that meant something to his cave mates. Stranger still perhaps: it forms part of that new knowledge expected to jump production in some of our farm crops—particularly on the prairies.

It is the language of the bees. Its meaning gets over through a kind of pantomime. The Austrian scientist, Prof. Karl von Frisch, who discovered it calls it "the dance of the bees."

Von Frisch, by common consent the outstanding research worker on bees in the world, found out other things about these insects. And he wasn't just noting scientific oddities. Actually, he added enormously to that background of experiment which since the second World War has so sharply stimulated planned use of honey bees as pollen transporters fertilizing the flowers of certain food crops.

Already in Britain, the Soviet Union and Germany, honey bees are directed to carry pollen to specific fields on farms. To accomplish this it was often essential to know how the insects communicated with each other. In a few states south of us—Iowa and Ohio especially—bee colonies are fast becoming a major factor boosting output figures of legumes like alfalfa and the clovers.

Canada's Central Experimental Farm Bee and Forage Plants Divisions are this year jointly conducting tests of prime importance to prairie farmers in forage crop areas. The findings will interest many fruit growers as well.

What started all this was the decline in population of wild pollinating insects. Modern agricultural methods have dangerously interfered with the bees' primary function in nature: to carry the pollen that fertilizes flowering plants. Intensive cultivation along with other causes has often destroyed the breeding places of nectar-seeking insects, especially wild bees. This is not only true in lands of older agricultures. A lot of Canadian and American farmers are not at all happy about the depleted numbers of such insects in their districts. Several crops have been affected, the legumes in particular which are mostly self-sterile.

Many were aware of the problem. It was largely the work of Professor Karl von Frisch on the forag-

ing behavior of honey bees that pointed to the answer.

On this continent we learned of his major discoveries only after the downfall of Nazi Germany. Some members of an American scientific mission riding the wake of the invasion came upon the professor in Graz, Austria. For something like forty years he had studied the senses of insects and some lower animals. Back in 1923 he noticed that bees were getting information across to each other. He wasn't the first to detect the phenomenon. Before the turn of the century the famous Belgian writer and bee lover, Maurice Maeterlinck, and the distinguished French apiculturist, Georges de Layens, had both surmised their bees were saying a thing or two. But they couldn't say how. Nor could von Frisch until his exhaustive experiments of 1944 and 1945. Only then did he really uncover the long hidden meaning of the "dance of the bees." Later research that continued into last year revealed further facts and confirmed his earlier conclusions.

WE have thought our ability to communicate set us apart from lesser creatures. Now a scientist tells us that the honey bee informs her hive sisters the direction and distance of a new flower patch from their home. Back from a scouting flight, this bright insect also gets over the richness of the new food supply; its kind—that is, whether it be nectar or pollen; and the scent of the bloom containing it. Hardly a trifling feat for a half-inch female that may have foraged two miles or more from her community.

For a time Prof. von Frisch could scarcely credit the more startling aspects of the language he deciphered. They meant that bees had abilities far beyond anything attributed to insects. Repeatedly he tested the small creatures in his glass observation hives. The answer was always the same. Individuals in those regimented communities were exchanging information in amazing ways.

One internationally known zoophysiologist has since declared that "reflexes and instincts" cannot explain the von Frisch revelations. Mental pro-

cesses, he insisted, take place in the small heads of the bees.

Other scientists have since applauded the professor's methods as a model of entomological research. To identify individual bees, he spotted various parts of their bodies with different colored dyes. Each combination of colors was assigned a number. Almost 600 bees were thus labelled, and the scientist could pick them out even in flight.

In a meadow he set out dishes of sugar syrup scented with a particular blossom. After his bees had sipped, he watched with endless patience their every activity in the glass-walled hive.



A group of hives at the Central Experimental Farm, Ottawa.

And this is what he saw:

The first foraging bee to alight on the dish of sugar water filled her honey stomach and flew to the hive. On one of the vertical combs she went into a dance. She ran in a small circle, first in one direction, then reversed herself and described a circle in the opposite direction. The larger the food supply she had found, the more lively her pace. A spirited performance would arouse the attention of many other foragers. When she was listless, her audience was small.

Von Frisch named the runs of the scout bee the "circling dance." It was one of the two main variations of the "dance of the bees."

Every now and then the scout interrupted her dancing to feed onlookers minute samplings of the nectar. Such droplets gave off enough scent for the foraging group to recognize the food in the field.

The scent was part of the information the scout conveyed, but only part. She told much more through her dancing. It was then that the insect touched the peak of her linguistic talents.

When the food source was within about a hundred yards of the hive, the bee did the circling dance. The movements (Please turn to page 26)

[Federal Dept. of Agriculture photos.]



A trained observer taking a sample count of insects getting their pollen and nectar from a forage crop at the Central Experimental Farm. Only by this sort of painstaking work can the practical value of von Frisch's discovery be measured.

The NEIGHBOR GIRL

BESSIE MARSDEN, standing on the big encyclopedia, placed on a chair in front of the bedroom window, reached up and yanked viciously at the rose cretonne curtains. Every inch of her stout, five-feet-two figure expressed righteous indignation, as she stared out over the farm garden which was hidden under the lingering snow of March.

"Why that boy had to fall in love with a girl who lives in the city and works in a bank beats me," she said worriedly as, teetering precariously on her perch, she finally unhooked the curtains from their rings and let them drop in a heap on the floor. "Jim had sense enough to marry a neighbor girl. With dozens of fine farm girls to choose from, Bill has to get himself a city girl, and a bank clerk at that."

Her husband, Tom, watched her from the bedroom doorway, tolerant amusement and understanding in his dark eyes. He knew Bessie. She had worried over the kids ever since they were born. She would go on worrying until she wasn't here any more.

"Just because your eldest son picked out a local beauty, doesn't mean Bill has to follow suit . . . besides, maybe he isn't going to marry her. Maybe she's just a friend," he said helpfully.

"Hmph!" Bessie turned her bright blue gaze on her husband and pushed back a lock of greying blonde hair from her flushed face. "He's been chasing into town every other week-end for months now. Writing long letters every other mail. Now, he's bringing her out here the day after tomorrow to spend her holidays. Don't worry! He's in love with her. And why she should have her holidays in March, I don't know . . ."

"And why you should have to clean the whole house from end to end and wash the curtains in our bedroom, I don't know," said Tom, "and for heaven's sake get down off that crazy book on that chair. You've got the most horrible habit of climbing around. Why on earth don't you use the step ladder? One of these days you'll be . . ."

"One of these days I'll be falling," said Bessie, her blue eyes sparkling suddenly as she laughed down at him. "Don't worry, old man, I've never fallen yet. And the reason I'm going to wash these curtains," she went on, her smile fading, "is because she is going to sleep in this room."

"Our room!" Tom stopped rolling a cigarette, and gaped at his wife. "Why can't she have Jim's old room?"

"We are going to have Jim's old room as long as Miss Kay Sinclair is here." Bessie slithered down from the chair, caught her small foot in a rung and sat down suddenly, while Tom shivered with apprehension. "This is the best bedroom we've got. I'm going to fix it up as good as any room in the city."

"Listen!" Tom laid his cigarette on the little porcelain tray on the bureau, took his wife gently by the shoulders of her blue-and-white striped cotton dress and shook her lovingly. "There isn't a room 'n this house that's not as good as any in the city. You've got no need to be ashamed of any part of it. And if it's good enough for you and me and



Bill proudly presented Kay. "Well Mom, what do you think of my girl?"

Bill, it's good enough for Bill's girl. What's the matter with you, Bessie?"

Suddenly she clung to him, dropping her head and pressing her face against the rough leather of his jacket. "Oh, Tom," she wailed shakily, "I'm scared! S-s-suppose she doesn't like us . . . S-s-suppose she's stuck up and horrid. Suppose Bill wants to marry her and she's not our kind of girl at all . . . Oh, Tom!"

"For heaven's sake!" said Tom. "You have the most morbid ideas . . ." But his arm tightened around his wife, and he stroked back the faded blonde hair from her flushed forehead and said gently, "Here! Let me wipe your eyes. It'll be all right, Bessie. It's Bill. Our boy! He's not going to choose a girl we can't love, is he now?"

BESSIE smiled a watery smile. "I g-g-guess not," she said, "but, Tom, if he'd only picked a neighbor girl . . . I can't see this one cooking for threshers, or helping to can and put up preserves, or . . . or . . . bringing up a little pig on the bottle, can you?"

"You can never tell," said Tom cheerfully. "She might surprise you yet. That reminds me," he said, picking up his hat and leather gloves from the bed, "I've got to get back to the old sow. Old Susie sure hated the new pen. Darned if she didn't break out again this morning. Hope she has sense

to stay put when she farrows." He turned to go. "Now, don't you worry any more, Bessie. Everything's going to be all right."

But Tom's laughing dark eyes were grave, and there was no twinkle in them when young Bill Marsden proudly presented Kay Sinclair to his father and mother on Thursday evening.

She was slim and blonde and lovely. Her hair, when she took off her scrap of feathered blue felt hat, was smooth and shining; her blue suit and white silk blouse, expensive-looking and immaculate. Her skin was clear and faintly pink, and her eyes were large and grey and candid.

She looks like one of my Eternal Youth roses and she's got the scent of the roses about her, thought Bessie, as awkwardly she held out her work-hardened hand and felt the small, soft hand of Bill's girl cling to it.

"Well, Mom, what d' you think of my girl?" Bill bent down from his height of six-feet-one, and his blue eyes so like his mother's, looked steadily into hers. "Pretty nice, eh?"

He slipped his arm around Kay. "They grow them good looking in the city, don't they?"

Bessie looked up at him. This couldn't be Bill, her little boy, her youngest, who it seemed only the other day had been a worried nine-year-old boy because he couldn't buy her a fur coat for Christmas.

This wasn't Bill. This was a stranger, a broad-shouldered stranger in a smart, grey tweed suit, with brown hair, and blue eyes which looked down now at a slim blonde girl, and who said again, "Don't they, Mom?"

Bessie's heart contracted and missed a beat. If only she had the grace, the ability to say, "Your girl is lovely, son." If only she could have taken this strange girl in her arms and said, as she wished with all her heart she could say to her, "You look so sweet. Please, whatever you do, love him. Only love him and be good to him. He's my boy and I'll give him to you, but please, please make him happy. That's all I ask."

But she couldn't! She couldn't! All she could do was stand there in the comfortable farm kitchen which she had scrubbed to a state of hospital-like cleanliness and say weakly, "Hello, Kay! I hope you had a nice trip out from town."

Bessie Marsden had never been able to express her feelings in words. When she was moved the deepest, she became the most inarticulate. When sudden sorrow in the

(Please turn to page 36)

by KATHERINE HOWARD

Bill Marsden did not have the sense to marry a farm girl. Instead, he chose a city girl and a bank clerk at that, much to his family's concern

Illustrated by J. H. Petrie



A rear door cracked open, swung wide, and Burnet stood looking at him smiling.

USUALLY, after the evening meal, when the tin plates had been tossed back into Barney McCann's wooden washtub, the men remained cross-legged in front of the fire, smoking and talking.

There was no talk at all this night; and it was the hard, tight-lipped silence of dissatisfaction. More than once Lew saw Connie Lee's glance lift to him, questioning, wanting his answer.

Moving toward his eight o'clock guard, he passed Joe Wheat and Bob Blade propped against their bed rolls. He looked down at the older man. "Keep your boots on tonight Joe, you and Bob. And if you can do it without drawing too much attention, leave your horses saddled."

Wheat's deeply pocketed eyes started up.

"This herd," Lew said, "is going north."

"About time," Wheat muttered.

"And if any orders are given, I'll give them." The grey head nodded. "All right, Lew."

Connie had climbed into her wagon immediately after the night meal. But the end flap of canvas was still rolled up, and leaving Wheat and Bob Blade, Lew walked over close. She was stretched out on top of the blankets, her head on her arms; and in that slack flatness of her body he saw the draining fatigue of this month on the trail.

At his step, she lifted her head quickly; a start went through her.

He approached and leaned on the wagon tailgate, and saw that her eyes were darkly moist. Gently, he said, "I wish you were out of this. It's too hard, Connie."

"No, it isn't; not the way you mean." She raised her face a little higher toward him and there was no reservation in her eyes; and for one moment he saw something that took away the dull ache he had felt, ever since he had known he had lost this girl. Then she was saying, "It isn't the trail that's hard; it's something I'm beginning to see."

Her eyes held his and it was what he read in them, that made him ask, "Too late, Connie?"

Lew nodded. "Not unless this herd moves. We're moving it tonight. Hold in a minute."

THE cattle had been bedded compactly some 300 yards from camp, and looking back, he could see only the red glow of embers. Then he spoke to Quarternight. "The trail keeps due north beyond the end of those low hills. If the Pitchfork got a late start today, they can't be more than 15 miles ahead." He lifted one hand and traced the hills with it to a wide saddle a little west of north. "I know another route," he said, "over there. It's flat country beyond that pass—a good place for cattle to run if they once get started. What do you say?"

Quarternight looked at him, slowly grinning. "First time I ever heard a man making his own stampede! It'll work, though, I think."

"It will if we can keep them pointed. I've already got Joe Wheat and Bob Blade primed. They'll take orders from no one but me. If Carr and Hutch Bonner try to swing the herd off, they can't do it by themselves."

"Suits me," Quarternight agreed. "When do we go?"

"Now. You ride around there to the left; keep off at the side and a little behind. I'll stay here. Unless they go clear spooky, one shot will start them away from us. I'll do that. Afterwards, use your own gun to keep them running straight."

As many times as Lew Rand had seen it, he never lacked a startled surprise at the way trail cattle could jump. One moment they would be like a dark, quiet pool—legs of each animal folded under a round body, head bent back along one side—and the next instant they could be up and running in a solid mass.

It was like that now. He saw Quarternight's dim shape reach the opposite side, pulled his gun and fired one shot into the ground. Then, while the blue flash was still splitting the air, he was being carried forward with the lunge of his horse, and the dark pool had risen, streaking away like water released from behind a dam.

Across from him, he saw the flashes of Quarternight's gun. He raced up along the flood, firing again to keep it pointed toward the pass. These were long-legged Texas cattle; for a couple of miles they could run with the speed of a horse. Their own instinct seemed to lead them into the low saddle of the hills. They poured through, still running strong.

Like that, with his gun and Quarternight's preventing any swing, they ran their first two miles, then settled into a long, easy gallop. There was no bellowing; the only sound was their heavy breathing and the snare-drum clatter of split hoofs.

Lew began to watch behind him. Yet it was more than half an hour before he saw two riders emerge out of the dark and slowly overtake the herd. They parted. Then it was Joe Wheat who came up at his side.

Loping on with him, Wheat called across, "They sure been running! How we pointed?"

"Northwest . . . keep west of the star. What about Clay?"

"Don't know," Wheat yelled. "Left him cussin' like the devil. When he catches up, you better watch out."

"All I want," Lew answered, "is a little more time." In a moment he called, "Stay here. I'll move up."

There was no slack in the wave-like gallop of the cattle. They were fresh, tireless through another half hour. When at last the pace slackened, he rode in close, firing his gun overhead to send the rush on again. He had no way to judge the distance. (Please turn to page 32)

Illustrated by Clarence Tillelius

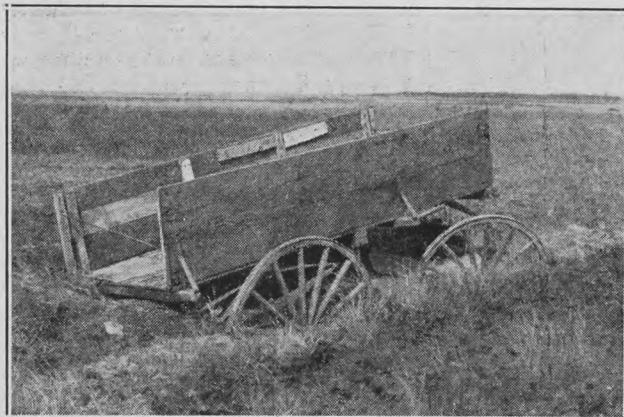


FLOOD AFTERMATH



by R. G. MARTIN

EVERY time we start to clean up some of the flood mess, we are blocked," said Mrs. J. G. Lewis of Morris, Manitoba. "We want bags for grain but the bags have been washed away; we have to fix a lot of fence but our pile of seasoned posts has gone. In every job we start there is just too much missing to enable us to show any real accomplishment and we've been back here for three weeks now." Her sentiments are indicative of the atmosphere of despair which overcomes the flooded farmers when they sit down long enough



to realize the amount of work still ahead of them in restoring their flood damaged farms.

The Lewis family came to the Morris district in 1912. The land which appealed to them most was two miles west of the town and it provided a lovely farmsite on the bank of a small creek which flows into the lazy Red River. They had seen floods before—but nothing like the disaster of 1950. In 1916 the creek had overflowed to lap at the foot of the lawn in front of their house. In 1948 it had been a warning of things to come and had spread to the front corner of the verandah. That is the low side of the house—no one thought that it could ever go higher than that.

The Lewises had experienced hardships and reverses such as all western farmers must be prepared to face, but they seemed to get more than their share. In 1918 and 1923 'flu had struck the family. As a result of it, the two elder children had been invalidated. In 1942, Mr. Lewis passed away leaving 16-year-old Lorne and his hard-working, cheerful mother to carry on with the task of operating the 480-acre farm. Help was almost unobtainable but with the perseverance, so typical of the pioneers of western Canada, the family and the farm were kept together.

LAST April it became evident that the probabilities of a flood were at least as great as they had been two years before. As the waters crept up through the town of Morris and backed out to the farms, no one could conceive of its rising to more than six feet above the '48 level. The Valley floor is flat. When the water rises one foot it spreads out for miles in all directions to form a huge, shallow lake. But this year the situation to the south grew even more desperate as May approached, and all indications were that

The J. G. Lewis farm—the water line was at the top of the barn door.

this would be more tragic than the record-breaker of '48. Where could so much water come from?

The Lewises prepared for the worst. Just before the highway became submerged, they evacuated the cattle to the farm of a "good Samaritan" at Carman. The 75 chickens were placed in the loft of the barn. Granaries were moved to higher ground and 2,200 bushels of seed grain were transferred to them. In the house, Mrs. Lewis brought the trunks and boxes of little-used but cherished clothing and keepsakes from the basement.

As the water continued to rise, sometimes at the rate of one-half inch per hour, more drastic plans were formulated subconsciously in the individual minds. No one talked of deserting the farm home. By May 15, the main floor of the house had been submerged. Lorne fed the chickens by going to the barn in a boat. One end of the piano was set up on a safe and the other on

two fire extinguishers. The sideboard built by Lorne's grandfather in 1877 was moved against the front door to hold the force of the water from bursting into the kitchen. That night the dreaded decision was made. With the help of neighbors, Mrs. Lewis with her invalid son and daughter were lowered from the second-floor window to the roof of the verandah. They crawled to the edge and stepped down into the boat which was to take them seven miles to Lowe Farm.

Lorne stayed to the last. First he set up whatever he could salvage, placing it on tables and cupboards. Then he left by boat. He went to Morris to offer his services in saving the property and livestock of his neighbors. From there he continued to St. Elizabeth—across a lake of over 20 miles width to stay with relatives. In the meantime, although he did not know where they might be, his older brother and sister were in the hospital at Morden, to which they had been moved when their mother had gone to stay with relatives near Hamiota, Manitoba. Twice he came back to feed the chickens and tie down buildings and equipment that were being carried away in the icy water. On one trip he shot the family pet—the dog which had been left on guard.

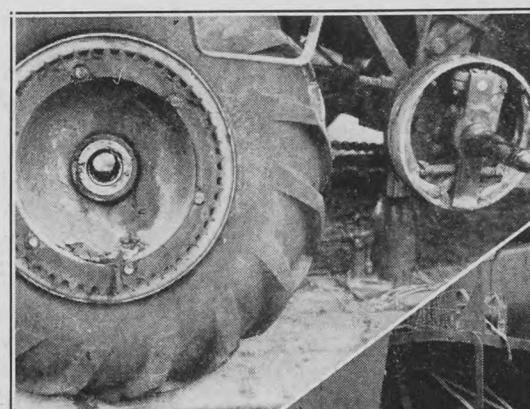
FOR three weeks the swirling waters ran rampant through the farm. They ate at foundations, they overturned buildings; what they could not move they bent and warped. As they receded it was frightening for the owners to think of what might be left behind. Would the fertile land be ruined? Would the buildings be beyond repair? How could they start over again and rebuild when so much had been lost and there was no hope for any income this year?

By the second week in June the water had retreated to a few channels. Lorne rowed out to the farm by a round-about route and tied up the boat to the hydro pole in the coulee in front of the house. He had brought some drinking water from the purifier in town and some food from St. Elizabeth. As he walked up to the house he saw that half the verandah had been torn

(Please turn to page 30)

From left to right: This farm wagon must now be dug out; a motor boat dinged the cab and its propeller scored the hood while this truck was submerged; removing silt and rust from the combine wheel hubs.

As the swollen Red River retreated after the flood, farmers in the Valley faced many new problems. This is the account of one family's activities in restoring their farm home



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War Diverts B.C. Activities

Prewar plans for trans-Pacific trade give way to planning for military defense

by CHAS. L. SHAW

THE campaign in Korea has again focused interest on the North Pacific, and discussions among military men nowadays in this part of the world have a strangely familiar ring, sounding very much like the talk that went on across the planning tables when Marshal Tojo was sweeping south in Asia and the war fleet of Japan was carrying everything before it.

In those days, the position of British Columbia and Alaska had a special significance because the province and the territory seemed destined to become the first objectives of an invasion force from across the Pacific should the Japanese successes continue.

To meet that potential threat and to exploit the Pacific Northwest's advantage as a supply route to the Allies in Asia, the Alaska Highway was rushed to completion and an oil pipeline was hurriedly laid from Whitehorse to the sea. Fortifications were built at key points along the coast.

The danger soon faded, especially after the series of Japanese naval disasters and the abandonment of the Aleutians by the enemy, but it continued long enough to make everyone conscious of the strategic importance of the west coast in case of trans-Pacific war.

When the envoys of Tokyo signed the terms of surrender in 1945 it seemed as though the Pacific would be true to its name for a generation or more, but the events in Korea have, for the time being at any rate, upset all these calculations. There is no telling how long the military operation may continue or to what extent it may spread.

Enough has happened already to provide new stimulus to strategic planning on this coast. The industrial potential of British Columbia in terms of munitions production is again under unofficial study; military leaders are urging the construction of another highway through the Fraser Canyon as an alternate link between coast and interior, and there is renewed consideration of Pacific Great Eastern Railway extension to Alaska as a means of funneling war and other supplies to the frontier.

Apart from any direct military effect on this coast, the Korean business has set back a long way further the timetable for recovery of trans-Pacific trade which had been contemplated with such enthusiasm as a postwar development.

SO far as business relations are concerned, the Asiatic continent might as well be in some distant planet. There has been a trickle of commerce between Canada and Japan and a certain amount of freight moves on a sort of hit-or-miss basis between British Columbia ports and Hong Kong, but to all intents and purposes China is a blind spot on the map, in a trade sense. No longer are sparkle-eyed exporters dreaming of the enormous turnover they could accomplish if every Chinese coolie had his standard of living raised fractionally. It used to be one of the favorite tricks of after-dinner speakers along the Pacific

coast to close with a peroration referring to the country's boundless natural resources and the possibilities of billion-dollar trade with the Far East. The orators still refer to the resources, but the Far East as a theme for eloquence no longer functions. And the Korean imbroglio will probably apply a blackout to the hopes of a happy restoration of trade between Canada and the Orient for a long, long time.

British Columbians have been forced rather reluctantly to concede in recent months that their trading circle has been sharply restricted and that, on a practical basis, it does not extend much beyond the frontiers of this continent. Before the war, British Columbia sold large quantities of lumber to countries such as Egypt and France, and of course the United Kingdom was the biggest customer of all. We also sold canned salmon, apples and metals and other products of west coast industries on every continent. But not so today. Currency restrictions or, as in the case of Asia, political difficulties, have eliminated a vast region of potential sales territory.

THIS situation has been made much easier to bear painlessly by the fact that the economy of this continent continues at such a high level. Domestic and United States demand for the products of British Columbia has been so insatiable that no one has had serious cause for anxiety. This is the month when thousands of vessels engage in the salmon fishery off the coast, and it is a reasonable guess that more than 75 per cent of the total catch will eventually find its place on the table of the Canadian consumer—a sharp contrast with conditions a few years ago when more than 90 per cent of the canned salmon pack was being marketed overseas. Most of the apples grown in B.C.'s sunny Okanagan this year will be eaten in Canada, too, and sales abroad will be negligible unless there is an unexpected change in the exchange situation. Instead of buying nearly a billion feet of B.C. lumber this year, as she did before the war, Britain will try to get along with a quarter of that amount, while the bulk of the sawmills' output goes across the border into the United States to be paid for at the highest price in history.

In other words, there has been an almost complete reversal in trading practices since the war and prewar years, but since there is no unsold surplus and top prices are being offered for everything produced, B.C. has slight cause for worry. The only unfavorable aspect is that under present conditions B.C. has most of her export eggs in one basket—the United States. There would be a greater sense of security if markets were more widespread and diversified because a sudden shift in the United States economy or a steep rise in some tariffs could make a severe dent in B.C.'s business.

Since nothing along that line appears to be immediately in prospect, this province continues to gear its production to suit the American market. H. R. MacMillan, outstanding



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industrialist of western Canada, brought his bright new \$20,000,000 pulp mill into production this month and practically all its output will be sold south of the border. In an address to university graduates recently, Mr. MacMillan said Ottawa's greatest economic contribution to the welfare of Canada would be to broaden the scope of opportunity for selling in the American market. A few years ago Mr. MacMillan held the view that Britain had proved the only dependable customer and that the American market could not be relied on. Basically, he may not have changed his opinion, but as a realist Mr. MacMillan seems to realize that in these days of shifting traditions Canada's best market is the market nearest home. It may be added that Mr. MacMillan's record for foreseeing economic trends is impressively high.

Many strange things are happening in trade these years. In addition to arbitrary currency adjustments and political developments, nature is an important influence, too. For instance, who would have guessed a few months ago that British Columbia canneries would be packing thousands of tons of fruit brought in from the United States? Yet that is precisely what will be done this summer by Okanagan packinghouses because of the reduced crops in B.C. The reason for the shortage, of course, was the exceptionally long and severe winter.

Based on last year's prices, B.C.'s crop loss is estimated at more than \$8,400,000, and A. K. Lloyd, presi-



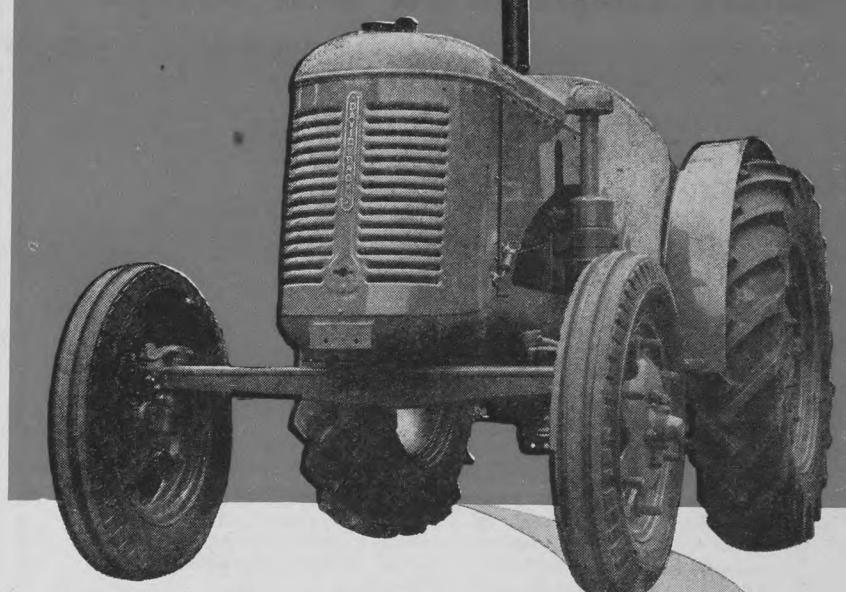
dent and general manager of B.C. Tree Fruits Ltd., regards this as a conservative figure. It certainly does not take into consideration the probable loss in income to orchardists during the next few years as a result of the destruction of thousands of their trees.

There was an estimated loss of 95 per cent in peaches; 90 per cent in cherries, 90 per cent in apricots, 60 per cent in prunes, and so on. Fortunately, apples—the big money crop—lost only 20 per cent, but even that is not to be lightly considered. Individual losses by some growers have been little less than tragic. One orchardist near Oliver claims that 1,200 of his 2,000 trees were either destroyed or damaged.

Evidently eager to offset the farmers' difficulties of last winter, nature is being kind to them this summer, with spells of fine growing weather. This is the season when the country looks at its best, whether it be in the Peace River grain fields, the dairy country of the Fraser Valley, or the strawberry lands of southern Vancouver Island. Travelling through these areas, it is hard to imagine that they were roughly dealt with only a few months ago. The Fraser Valley has one source of satisfaction this summer; the river, after some early-season feinting, decided to settle down and cause no turmoil. The flood danger is over.

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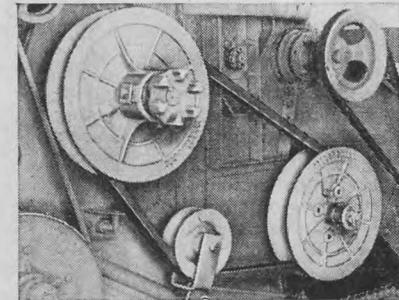
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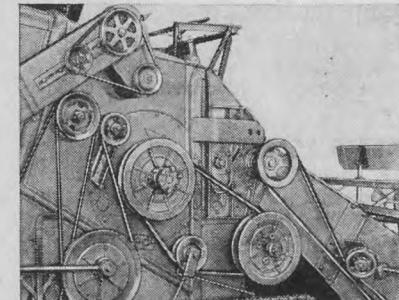


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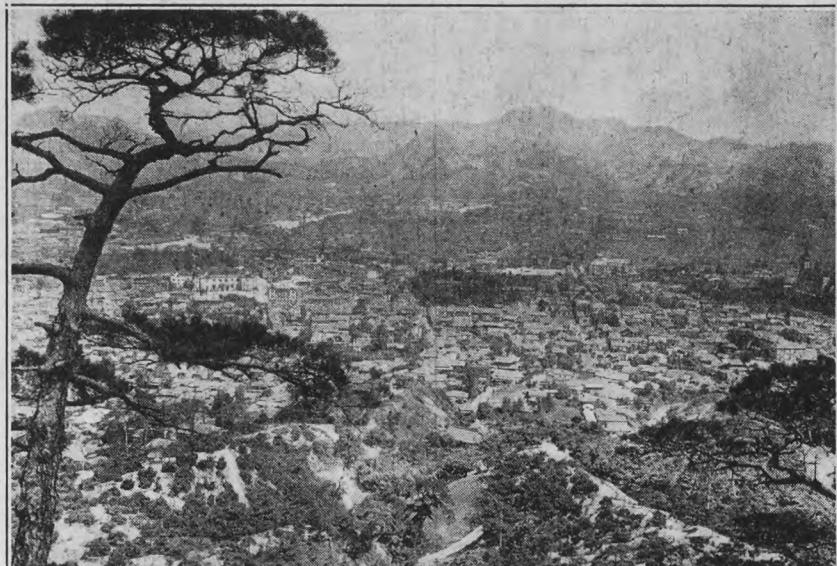
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Seoul, capital of Southern Korea, now in Communist hands.

Large Co-operative Sales

THE turnover of co-operative organizations in Canada climbed \$200,000,000 over 1948 to reach a record figure of \$1,000,000,000 in 1949. During the same period membership went up 60,668.

A report from the Economics Division, Dominion Department of Agriculture, indicates that co-operative sales of farm products made up \$783,300,000 out of the total. Sales of farm machinery, clothes, home furnishings, wool, coal, foods and other merchandise accounted for a further \$191,800,000. Sales of fish and fish products totalled \$14,000,000 and sales of fishermen's supplies, \$2,700,000.

During the 12 months ending July 31, 1949, co-operatives marketed 32.9 per cent of the main farm products which were sold commercially, 89.9 per cent of the tobacco, 79.9 per cent of the wool, 55.1 per cent of the grains, 27.5 per cent of the fruits and vegetables, 26.8 per cent of the maple products, 25.5 per cent of the dairy products, 18.4 per cent of the poultry and eggs and 12.1 per cent of the honey.

Farm Government Costs

THE U.S. Government employs 1,961,029 persons of whom 70,986 are employed in the U.S. Department of Agriculture. Employment by agencies within the department was as follows on January 1, 1950: Agricultural research administration, 16,082; Soil Conservation Service, 14,028; Production and Marketing Administration, 12,560; Farmers' Home Administration, 11,400; Forest Service, 10,275; Field Services, 3,477; Rural Electrification Administration, 1,163; Farm Credit Administration, 968; Federal Crop Insurance, 863; Commodity Exchange Authority, 100; Secretary's Office, 70.

Appointments and Retirements

THE appointment of Dr. E. S. Hopkins as Acting Director, Experimental Farms Service, Department of Agriculture, Ottawa, has been announced. It is the intention of the Civil Service Commission and the Department of Agriculture that Dr. Hopkins will become director on completion of Dr. Archibald's term of service. Dr. Archibald reached retirement age in May, but his term of

office was extended for one year to permit him to represent the Department of Agriculture at certain scientific meetings in England and Europe.

During his 30 years with the Experimental Farm Service, Dr. Hopkins has gained a close insight into the many problems and needs of Canadian agriculture, and a personal knowledge of the vast chain of farms and stations that it will be his duty to direct. He joined the Service in 1920 as Dominion Field Husbandman. In 1938 he was appointed Associate Director.

The appointment of Luke W. Pearsall is also announced as Director, Marketing Service, Department of Agriculture, Ottawa. He will succeed A. M. Shaw who is relinquishing this position in order to devote his whole time to his duties as chairman of the Agricultural Prices Support Board.

Mr. Pearsall joined the Federal Department of Agriculture in 1922. From 1939 to 1947 he was secretary-manager of the Meat Board, and presently is chairman of this Board. He has a wide knowledge of Canadian agriculture and practical experience in the marketing of agricultural products that will serve him well in his new position.

It is also reported that George W. Muir, Dominion Husbandman, Central Experimental Farm, Ottawa, has retired on superannuation after 36 years of service to Canadian agriculture. He joined the Animal Husbandry Division of the Department of Agriculture in 1914. In 1933 he was appointed Dominion Animal Husbandman, a position that entailed over-all direction of the experimental and research work in animal husbandry at the Central Experimental Farm and supervision of similar work on the branch farms and stations across Canada.

From the field of international appointments it is reported that Dr. G. S. H. Barton, special assistant to Minister of Agriculture J. G. Gardiner and one of the foremost authorities on scientific agriculture, has been named chairman of the Food and Agriculture Organization of the United Nations.

Meat Contract Discussed

RENEWAL of the meat contract between Argentina and Great Britain has been the subject of preliminary discussions. In the last contract year Argentina undertook to

supply 300,000 long tons of meat at an average price of £97.536 per ton. It is expected that by the end of the contract period shipments will total nearly 400,000 tons.

Informed opinion agrees that Argentina is not likely to be able to ship much meat in excess of 250,000 tons during the next contract year. It is reported that Argentina is asking £140.379 per long ton which would be a very substantial increase over the price of £97.536 in the current contract. Britain is not prepared to pay an increased price. A decision awaits the conclusion of credit negotiations between the Argentine and the United States.

Dairy Production

IN the United States the production of milk has been on the gradual up trend since early in 1949. It is expected that it may set a new record in 1950, since, during the first four months of this year, the annual rate of production has been 123 billion pounds. The prewar average was 103.6 billion pounds.

In Canada for the first five months of 1950, creamery butter production was 96 per cent of 1949, cheddar cheese 92 per cent, ice cream 92 per cent, all milk by-products such as condensed and evaporated milk 94 per cent. The percentage figure for all dairy products was 91 per cent.

Get It At A Glance

News briefs around the world

BY the end of last year 76 community pastures had been established by the P.F.R.A., involving a total of 1,437,320 acres of sub-marginal land. Between 1935 and 1948 the number of acres required for each head of livestock had been reduced from 58.7 acres to 20.5 acres.

THE Ministry of Food in Britain lost some £11 million on its potato trading in the fiscal year 1948-49. The policy of the government is to not allow retail prices for food to rise, and to subsidize producers to compensate them for increased costs.

THE fact that there are more stallions being enrolled and more breeders are applying for inspections under the horse breeder's act than did last year, indicates some resurgence of interest in horse breeding in Saskatchewan. Under the act it is illegal to offer any horse for public service in the province unless it has been inspected and approved by the stallion board and enrolled by the Department of Agriculture.

FEW farmers perhaps realize the size and extent of the Dominion Experimental Farm Service which in 1948 consisted of the Central Experimental Farm in Ottawa, 28 other Experimental Farms and Stations, 14 Experimental Substations, and over 200 smaller Substations and Illustration Stations.

AGIFT carload of purebred Yorkshires consisting of 91 gilts and five young boars were recently donated to flood victims who had been rearing good-quality pigs in the Red River Valley. Eighty-seven of the pigs were donated by 87 separate breeders in Prince Edward Island, the additional nine required to complete the load being donated by Canada Packers.

BY 1950 to 1951, western Europe hopes to reach the prewar level of grain production, but milk and meat production will only be about 90 per cent of prewar totals. This leaves out of account increases in population and improved nutrition.

UNDER the 1950 forage crop program of the Saskatchewan Department of Agriculture 908, farmers have bought seed to the value of \$40,000, to seed more than 10,000 acres. Purchases have included approximately 60,000 pounds of brome grass, 12,000 pounds of crested wheat grass and 20,000 pounds of alfalfa seed.

WANT to adopt a duck for five shillings? This is what Britishers are urged to do by the International Wild Fowl Inquiry Committee, interested in maintaining numbers of wild ducks and geese. Anyone adopting a duck is told its species, sex, the number of rings put on it and the date, together with any news regarding its location in other countries. One adopted last year by a daily newspaper turned up in eastern Russia.

MORE than 100 delegates and visitors representing various farm organizations attended the 10th annual conference of the National Farm Radio Forum recently held in Brandon, Manitoba. One of the major issues dealt with involved broadcast topics for the coming year. It was agreed that next year's program will deal with marketing problems, health and social security, education, farm management, international problems and other issues of importance to rural Canadians.

THE 1950 Royal Agricultural Winter Fair will be held during the period November 14-22.

THE Bank of Montreal recently pointed out that after eliminating price changes as far as possible, Canada's gross national production in 1949 was about 80 per cent higher than in 1939; and that even after allowing for changes in population as well as in prices, there has been about 50 per cent increase in per capita consumption of goods and services during the ten-year period.

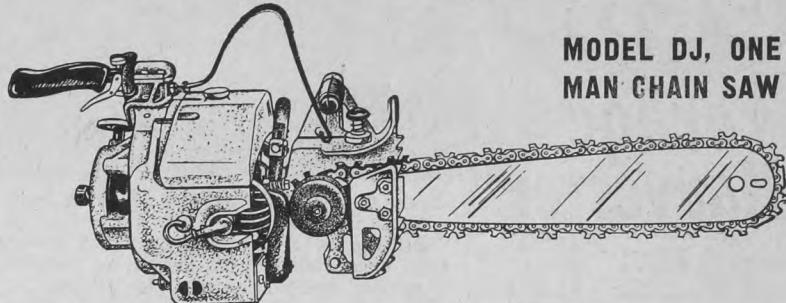
IN 1948-49 we used in Canada an estimated 144,500,000 bushels of wheat. We ate 45,000,000 bushels, fed 62,000,000 bushels to animals, including some waste, and used 37,000,000 bushels for seed.

ALBERTA recently enacted a scheme for assisting local self-liquidating projects. It is reported that at least 20 municipalities in the province are interested in developments based on the act. Under its provisions, money may be borrowed from the province at two per cent interest from a fund of \$5 million, which is available to all municipalities, including villages, towns, cities and rural areas.

FARMERS of Mapanaska Valley in Alaska, through their co-operative association, recently purchased 42 cows, and flew them in 1,500 miles by air to join the 350 milk cows already in the valley.

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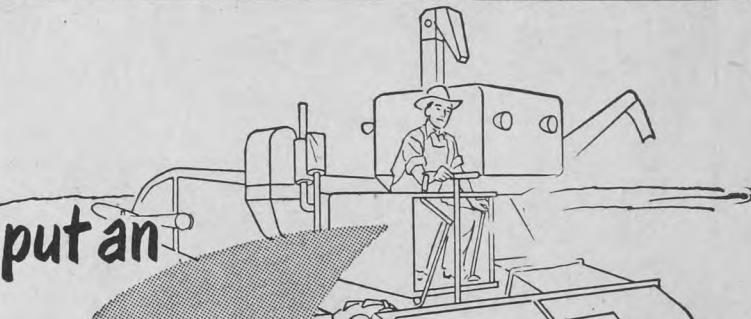
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Meat Tastes Changing

CONSUMER preferences for meat are changing. These changes are already bringing about alterations in the system of meat grading in the United States, and will probably result in a somewhat similar change in Canada eventually. What these tastes may mean to the livestock industry is now under study by the Federal Departments of Agriculture in both Canada and the United States.

In the U.S. the three principal grades of beef are prime, choice and good. Prime makes up less than one per cent of dressed beef, choice about six per cent, and good about 50 per cent. In Canada we have no compulsory grading but two grades have been established, red brand and blue brand. The difference in the grades in both Canada and the United States is largely one of fat. The top grades, so called, showing more "marbling," that is, layers of fat between the muscles.

Because many more consumers in both Canada and the United States prefer less fat than that developed in the red brand beef of Canada, or the prime and choice beef of the United States, the U.S. Department of Agriculture now proposes to put prime and choice into one grade called prime, and to describe all the beef now falling within the "good" classification as "choice," since it really seems to be the choice of the majority of consumers.

Below the present blue brand in Canada and the "good" beef of the United States is a grade called "commercial." It is now proposed in the United States to call this grade "good," and to include in it the younger and more tender beef of the grade now called commercial. The carcasses from older animals, particularly cow beef, would then constitute the new "commercial" classifications. The present U.S. commercial beef constitutes about 28 per cent of the supply; and the still lower grades, utility and cutter and canner grades, about 16 per cent. It is proposed to leave these unchanged.

A.R. For Swine

JUST as we have Record of Performance tests for dairy cattle and poultry, so the Advanced Registry for swine was developed quite a few years ago to provide some measure of performance. The regulations under advanced registry have been altered from time to time, the last occasion being in June 1949, at which time changes were made in the regulations dealing with production, or size of

litter, length of time to maturity, or maturity index, and the method of payment for the test pigs.

Litter size is no longer scored, although no litter of less than eight pigs, or any litter with defects or disqualifications will be accepted for advanced registry tests.

The maturity index is no longer reported, but reports now give the following information: (a) age of pigs in days, from date of birth to shipping for slaughter, the figure being adjusted to a standard cold-carcass weight of 150 pounds, so that records can be compared on the same basis; (b) age of pigs when placed on test at a group weight of 200 pounds (applied only to station-fed groups).

No change was made in the carcass standards or the carcass score. Sows which scored 75 points or more will be graded, "Qualified for Advanced Registry;" sows scoring from 60 to 74 points are reported as "Record of Performance" sows. A sow completing a test with only three carcasses, becomes eligible only for R.O.P. and then only if she meets the minimum requirements for that class. Such sows, however, will be permitted an additional test, if required.

Breeders who desire Advanced Registry tests are required to forward four test pigs to the test station, weighing 140 to 180 pounds as a group, and not, as previously, at a standard age of 50 to 65 days. Pigs tested will be paid for on the basis of the average price of Grade A carcasses for a three-month period. All quality premiums received by the Advanced Registry Board will be paid to the breeder when the report on the test is issued. The board also pays express charges from the breeder's nearest railway station to the test station, but returns the crates only on request and at the expense of the breeder.

Milk From Ewes

MANY races in Europe and the East get their milk supply from ewes, and it has been suggested that Australia, with its numerous flocks, could also draw upon this source to supplement home consumption. The milking records of over 200 Romney ewes taken over a five-year period at the Massey Agricultural College (New Zealand), give weight to this suggestion, and they have brought to light some interesting facts concerning both the quality and the quantity of ewes' milk.

It is, for example, much richer than cows' milk. The fat content varies

from two to 15 per cent, with a recorded average of six per cent. Solids other than fat amount to about 11 per cent, including from five to 5½ per cent of protein. At the end of the lactation period the milk is even more concentrated.

The milking period lasts about 12 weeks, during which ewes with single lambs yield quantities varying from 12 to 30 gallons. Ewes with twins give about 40 per cent more. A typical lactation curve showed that the milk volume increases slightly until about four weeks after lambing, and is then followed by a decrease in yield until the lamb is weaned. At the peak period the amount varies from 40 ounces to 80 ounces per day, with an average of about 55 ounces.

Feeding trials confirmed the already established fact that underfeeding of ewes both before and after lambing, affects their milk yields. The milk records of about 50 animals will be studied until they are six years old, to get information about relative yields at different ages, persistency, and other points of interest to sheep men. Laboratory work on milk composition is also being continued.

The records have established that New Zealand's breeding ewes yield annually a total of over 500 million gallons of milk considerably richer than that of the dairy cow. In other words, ewes yield milk solids equal to about half the amount obtained from all the dairy cows in the Dominion.—A. L. Kidson, Australia.

Animal Protein Factor

MANY times in the history of the human race, someone has recognized a truth long before anyone was able to explain it. Often a practice based on truth has become widespread before an explanation has been found by science.

For at least as far back as the oldest among us can remember, it has been a sort of unwritten law in mixed farming areas, that it is beneficial for pigs and chickens to follow the cattle. Pigs that were stunted, or did not do well, seemed to improve under this practice. It is not likely that many of us thought much about the beneficial effects, except that the pigs and chickens were likely to salvage undigested portions of feed used for the cattle. In mixed farming areas it was continued, not only because it was convenient, but because it had always been done.

Only very recently have animal nutritionists discovered that cow manure contains some factor which is distinctly beneficial. Today the nutritionists talk about the "animal protein factor," or APF, a term which was probably thought to be more suitable for use in classrooms and books than "cow-manure factor."

The value of a small amount of cow manure in hog rations, for example, is now known to be due to what is called the Vitamin B complex. There are a large number of vitamins in the B group, and the cow seems to be able to manufacture these in her paunch, which is, in effect, a 60-gallon fermentation vat. In this paunch, or vat, the reaction of microbes is able to break down the cellulose or woody material in forage crops, to a degree that is impossible in animals possessing only a single stomach, such as the pig. It has been known for quite a few years that animal proteins, such as fish meal, meat scraps and dried

liver are very rich in important vitamins, and therefore valuable supplements in livestock rations. It has been found that they are rich in exactly the same factors as are found in cow manure.

The scientists found that they could make some of these growth factors in the laboratory, by using bacteria or molds. They could not make them from yeast cells. They also found that these growth factors, which were the result of fermentation, were important for improving hatchability of eggs and for decreasing the high death rate among baby chicks. This, in turn, explains why researchers in Ohio have found that fermented droppings in built-up floor litter have benefited hatchability and the growth factor for chickens in some unknown way.

Quite recently a B vitamin has been isolated and designated as vitamin 12. It was secured from litter and sources associated with microbes. This new vitamin has also been shown to be one of the primary constituents of the animal protein or cow-manure factor. Furthermore, it is of importance not only to farm animals, but to human beings in connection with treatment of pernicious anemia. The fact that it is associated with cobalt helps to explain the importance of cobalt in the soil for healthful animal nutrition. Similarly, it explains why animals pasturing on soils deficient in cobalt develop a form of anemia.

And so it goes. The investigations of scientists lead them into many strange and apparently unrelated by-paths. From a study of the time-honored practice of allowing the pigs to follow the cows, we wind up with an explanation of pernicious anemia in human beings.

Selecting Breeding Lambs

SINCE the best time to actually select ewe lambs for breeding purposes is just prior to fall shipping, it is not too early now to keep this in mind. A careful program of selection will pay off much better than haphazard selection. Consequently, attention to the improvement of quality and quantity of wool and desirable type are the bases of future returns.

While final selection is a matter of one single operation, in which the lambs are handled, preferably in a panel chute, say, four feet wide and 50 to 60 feet long where large numbers are involved, careful observation during the summer, particularly in small flocks, will make wise selection easier when the time comes.

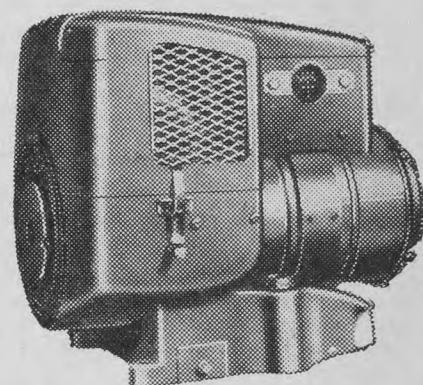
The general appearance of a lamb is the first step. Off-types, under-sized lambs and those lacking mutton conformation, are the first to be struck off the list. Next, according to the Lethbridge Experimental Station, is an estimate of wool production. This means handling the fleece by grasping it at two or three places along the side and back, and judging of wool production by the estimate of the quantity held in the hand. Length of staple is a matter of observation, after parting the fleece, preferably over the rump, and observing the actual length. Density and length of wool are important. Lambs considered below average should be marked for discard. Wrinkling or heavy face cover is also undesirable and may actually be disadvantageous under range management.

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Soil Is Like A Banker

A University of Wisconsin soil specialist recently likened the soil to a dependable banker. The food materials already in the soils, or added to it in the form of organic material, fertilizers, or farmyard manure, are kept safe in most soils against leaching and loss. The withdrawals of plant food by the roots of plants, are like cheques written against bank deposits.

This special service of keeping plant nutrients safe in the soil is performed, according to Emil Truog, by what he calls the miracle mineral, the aluminosilicates. Particles of this mineral are so fine that 10,000 of them laid side by side would not cover more than one-twenty-fifth of an inch. These particles cling to the larger soil particles and also to the plant nutrients which are added as fertilizer. "Plants roots," we are told, "can only get the nutrients from the miracle mineral, and they must do it by exchanging a less desirable material."

The plant roots which pick up these food materials or nutrients are also very tiny and very numerous. It is said that a four-week-old rye plant will have about 6,000 square feet of root surface. It is these tiny rootlets coming into contact with the tiny particles of the miracle mineral which make the trades and transactions necessary to enable the plant to live and thrive.

Truog also explains that if a farmer makes a small deposit in the form of a light application of nutrients, the soil will store it in a form which the plant can use easily. It is like a deposit to a checking account. On the other hand, if a large deposit is made, some of it will be put into more permanent storage, as in the case of an investment in bonds and real estate. As the supply of readily available plant food in the checking account gets smaller, the miracle mineral will transfer some from the long-time investment to the checking account. Like any other good banker, the soil requires a deposit before cheques can be written against it.

Tillage for Conservation

THE predominant reason for cultivating the soil over very large areas of western Canada is to conserve moisture. In trying to achieve this objective, a further objective of soil conservation is often overlooked. This means tillage in such a way as to

prevent erosion and to prevent the fine pulverization of the soil.

This multiple objective, then, means the correct use and the proper choice of tillage implements. It means cutting down speed to four miles per hour or less. It means maintaining a trash cover on the field as long as possible.

In this respect C. A. Cheshire, extension agricultural engineer in the Alberta Department of Agriculture, calls attention to the fact that the one-way can be used on a stubble field so as to leave about one-third of the original stubble anchored to the surface. Compared with the one-way, the disker will leave nearly one-half of the trash on the surface, and the heavy-duty cultivator, about two-thirds. Best of all are the blades and sweep-type cultivators, which may leave as much as four-fifths after the first stroke.

After the second or third stroke, the one-way or the disker will reduce the ground protection to about one-eighth of the original stubble and weed cover, whereas third strokes with the heavy-duty cultivators and the blades will leave some 40 to 70 per cent of the original trash still on the surface.

Alfalfa Varieties

THE plant breeders have made considerable progress in the breeding of new varieties and strains of alfalfa, as they have done so successfully with other major crops. It is natural that among forage crops alfalfa should receive a good deal of attention because of its recognized high quality nutritionally, for hay and pasture, and also because of the demand for northern-grown alfalfa.

During the last 10 years about 15 new varieties and selected strains have been tested at the Dominion Experimental Farm at Brandon. These have all been compared with Grimm, which has been recognized as a standard alfalfa variety since alfalfa was first grown on the prairies. What the plant breeders have been after is a variety which would be at least equal to Grimm for hay and, in addition, seed more consistently, while at the same time retaining vigor and yield.

According to the Brandon results, Ladak is recognized among the new varieties as definitely superior for hay, followed by Rhizoma, Ranger, Canauto, Viking, Buffalo, Grimm and Ferax in the order named. All these varieties are satisfactory for hardiness at Brandon. Differences in hay pro-

duction are traceable to differences in crown development, density of foliage, and the height and vigor of the plant. Ferax, for example, has a tendency to set more seed than Grimm, but has fewer leaves and thinner foliage than most other new varieties. Rhizoma at Brandon develops a dense crown, but this variety is not as distinctly superior as its reputed creeping root habit might promise. Indeed, this habit has not been particularly evident at Brandon. Ranger, Canauto, Viking and Buffalo are not sufficiently better than Grimm in yield, for hay, to be recommended as superior.

For seed production, Ferax has averaged higher yields, followed in order by Canauto, Ranger, Ladak, Rhizoma, Buffalo and Grimm. At the present time, therefore, Brandon recommends only Ladak and, perhaps, Rhizoma, as substitutes for the popular variety, Grimm.

Wheat Farmer and Science

A PAST president of the Canadian Seed Growers' Association, F. W. Townley-Smith, offers some interesting comments on the dependence of the wheat growers of western Canada on the work of the plant scientists. Probably a great many farmers appreciate the work that science has done for them indirectly, but in all likelihood comparatively few have really attempted to determine how much they owe to science. Mr. Townley-Smith speaks from long farming experience in northwestern Saskatchewan, and this is what he says in part:

"I suppose there are . . . (independent) farmers but I still think that if the farmer is wise, if he expects to be prosperous, he will soft-pedal this rugged individualism business and keep his eyes and ears open for the work being done by the scientists. For I believe there is no man who is more dependent upon the scientist than the farmer . . . When I started to farm in 1903 in northern Saskatchewan (N.W.T. in those days), the only wheat we knew was Red Fife and the season was too short to grow it. Eventually we went broke trying to grow it. Then, the scientists went to work and produced Prelude, Reward, Early Red Fife, Marquis, Garnet, all of them much earlier than the old Red Fife and all good bread wheats. So we were back in the wheat business. Then we ran into a plant disease known as black stem rust of wheat, and once again we went broke, as the losses in western Canada ran into a good many millions of dollars. Again the plant-breeding scientists went to work and produced wheats that were rust-resistant, Thatcher, Apex, Renown and also Early, so once again we were in the wheat business."

"In the meantime these scientific gentlemen had made a few other improvements in the wheat plants. The straw is now stronger, so that the crop will not fall over or lodge. The grain sticks tighter in the chaff, so that it no longer shells out or shatters and can be left standing in the field until the combine can harvest it. More bushels per acre or better yields are now grown than in the days of yore, and the latest accomplishment is a wheat known as Rescue, which resists the attack of an insect pest known as the wheat-stem sawfly, and which has been the means of saving hundreds of thousands of bushels of wheat in the prairie provinces. Now, what price

rugged individualism? If the wheat farmer had not had the assistance of the scientist, where would he be now?"

Serious Potato Disease

In recent years bacterial ring rot which is sometimes called bacterial wilt has been recognized as a very important and serious disease of potatoes in the prairie provinces, particularly in Manitoba and Alberta. It causes very serious losses to growers as a result of the rotting of tubers in the field, and in storage. The Dominion seed certification service now allows no ring rot in potato fields passed for certification. Even one hill or one tuber infected with ring rot in a whole field of potatoes will disqualify that field for certified seed.

From this it will be seen that the eradication or control of this disease is most important. It is spread by the fact that the organisms are present in infected tubers harvested from diseased plants. Infection may be very mild so that detection is difficult. Even lightly infected tubers, however, may contain countless bacteria which in turn may contaminate cutting knives, potato bags, storage facilities and various pieces of farm equipment used in producing the crop. So far, in Manitoba at least, there is no evidence to date that the ring rot bacteria will live over winter in the soil.

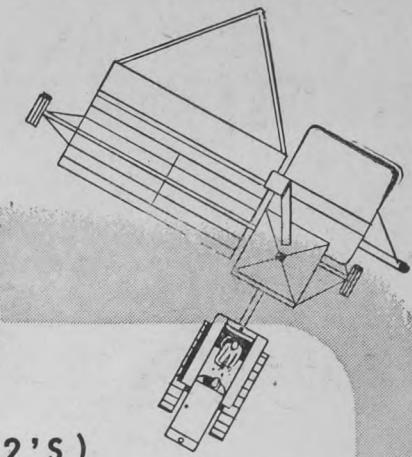
Infected plants may show no symptoms until later in the growing season, then individual stems may wilt, leaves may roll, turn yellow, become brown, and eventually die. Some plants may become infected without any symptoms appearing. Any plants that look suspicious should be sent to the nearest identification center, which may be your agricultural representative, provincial university, Dominion experimental station, or a laboratory of plant pathology.

When an infected tuber is cut open, the cross section shows a ring of discoloration some little distance under the surface. It is easy to carry from year to year in the seed stock, or tubers.

On farms where the disease is already present, the entire crop should be disposed of for table stock purposes, the premises and equipment thoroughly disinfected, and sufficient new certified seed potatoes secured to plant the next crop. Buying table stock potatoes for seed is dangerous.

Pollen-Sterile Corn

THE production of hybrid corn seed has always been expensive because of the necessity of detasseling the seed-bearing plants in the process of controlling hybridization. Now two scientists, Dr. Donald F. Jones of the Connecticut Agricultural Experiment Station, and Dr. Paul C. Mangelsdorf, Professor of Botany at Harvard University, have discovered a method of producing pollen-sterile plants which will make detasseling unnecessary. Dr. Mangelsdorf discovered a native variety of Texas corn which does not bear pollen. By crossing and back-crossing this pollenless variety for several generations, the scientists have been able to reproduce the sterile or pollenless character in inbred strains of corn. By using a sterile inbred as one of the parents, hybrids can be developed without pollen and will, therefore, require no expected and troublesome detasseling.



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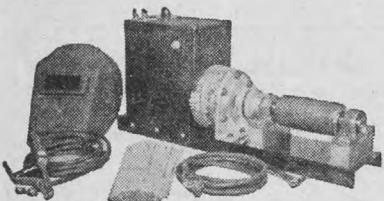
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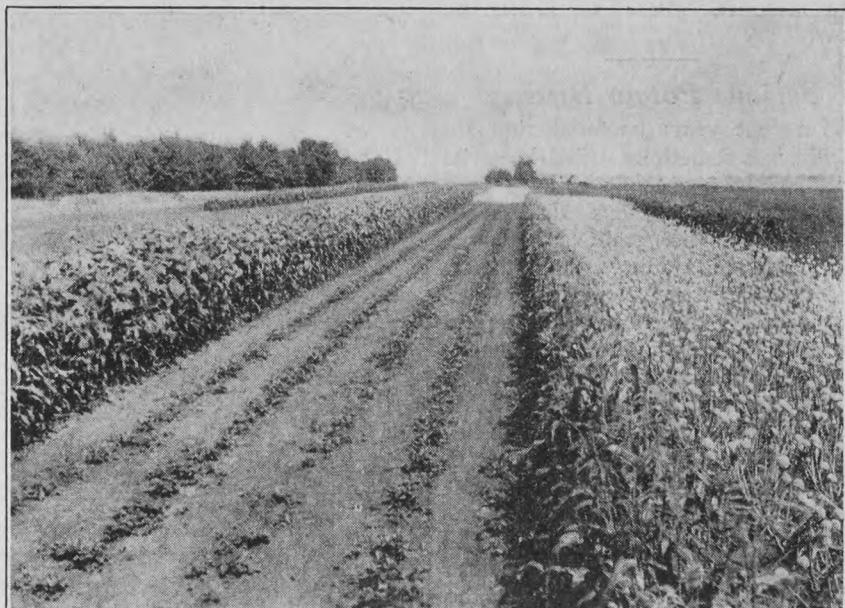
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HORTICULTURE



Strawberries and onion seed separated by a row of corn on a farm at Portage la Prairie.

Raspberry Diseases

LIKE other fruit plants, raspberries are attacked by a number of diseases. Among the most destructive and fairly common diseases are mosaic, leaf curl, spur blight and crown gall.

Mosaic is a virus disease which shows not only on the new growth but on the laterals of the fruiting canes. The leaves first become light green and later are mottled with yellow. They also tend to pucker. If an occasional plant is noted, it should be dug out and thoroughly destroyed at once. This should include other nearby plants. If there are many plants affected in a small plantation, the whole lot should be destroyed and a new planting started some distance from the old one, making sure that the new stock is healthy. The variety, Chief, is not only widely planted because of its hardiness, but because it shows more resistance to mosaic than some of the others. Other varieties which show some resistance are Newburgh and Herbert.

Leaf curl is recognized by the fact that the leaves are very wrinkled and curled, and usually of a darker green color than is normal. Like mosaic, leaf curl is a virus disease and the only remedy so far known is to dig out the plants and thoroughly destroy them.

Fur blight is a fungus disease which produces dark red or chocolate brown spots on the leaf stalks and on the young bark. It can be controlled by pruning out and burning all the old canes, and any diseased young canes, after harvest. This should be followed by spraying the plants with lime-sulphur, using one pound of fresh lime-sulphur to 10 gallons of water. Young canes eight to 10 inches high may be sprayed with Bordeaux mixture 3-6-40.

Crown gall is also a fungus disease, which stunts the plant as the result of knobby swellings on the roots. The best control for crown gall is to select disease-free soil and to plant healthy stalks.

Lawn Grasses

THERE are several very useful lawn grasses, perhaps the most common one being Kentucky blue grass. This grass spreads underground and forms a dense, dark-green sod. During the hot, dry weather of mid-summer, it

browns very easily, but recovers with late rains. The Dominion Experimental Station at Morden recommends seeding at three to four pounds per thousand square feet of surface.

Creeping red fescue is recommended because of its adaptation to shady areas and to dry and sandy locations. It spreads underground to form a dense, fine turf which will resist wear and is bright green late in autumn. Seed four to five pounds per thousand square feet.

Red top is sometimes useful as a nurse crop for the slower starting Kentucky blue grass or crested wheat grass. It will generally disappear after the third year, leaving only the other grasses. It is a coarser grass and when used should make up about 15 per cent of the grass mixture.

Canada blue grass is not as attractive as the darker grasses, but stands heavy usage, tolerates drought, grows underground, and suits a lean soil.

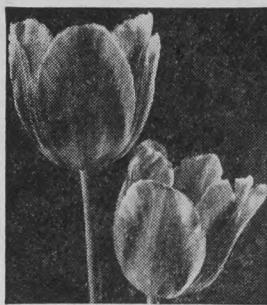
White clover is sometimes used because it stays green during the dry weather. The wild white clover is finer than White Dutch. A very small percentage of clover in the mixture is enough and a little bit can be raked into the lawn each year.

Vacuum Berry Picker

BENDING over to pick cranberries was tiresome work and slow work as well, so one cranberry grower in British Columbia wondered if there wasn't a quicker and easier way to do it. When he saw how a vacuum cleaner picked up the dirt and rubbish he had an inspiration.

The cleaner was lugged out to the cranberry patch and put to work. It seemed to be doing a good job and sucked the berries off the bushes very neatly, but disappointment awaited him when he opened the container. The berries were all mashed into cranberry jam. He did some experimenting and made some changes and finally had the vacuum cleaner picking the berries without injury.

It was still rather slow work so when he saw a machine in a Vancouver store window that looked like a giant-sized vacuum cleaner, he was interested. When he asked what it was for, the dealer told him it was a furnace cleaner. When he asked for a chance to try out the machine in his berry patch, he had quite a time



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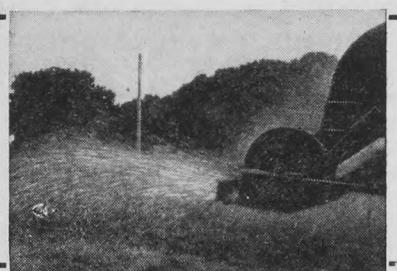
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convincing the dealer he really meant it. However, it was given a trial and worked like a charm. He bought it.

Now he and his wife can harvest four hundred pounds of cranberries in the same time that it takes sixteen hand-pickers to gather a like amount. Other growers were soon interested and the nut growers began using the big vacuum cleaners to harvest their crops.—C. V. Tench, B.C.

Fruit Exhibits

BECAUSE of the different periods of ripening it is almost impossible to get a well-rounded fruit exhibit. Generally speaking, the best time for such exhibits on the prairies, is in the latter part of August or the first week of September. In the more prominent and strictly commercial fruit-growing areas there is more flexibility in the period during which a successful exhibition can be held. Special cold storages for fruit are available. Varieties can be harvested at the time best suited for them, the fruit can be placed in cold storage at relatively low temperatures, and allowed to mature slowly so as to be in the best possible condition for an exhibition as late as the middle of November, when, for example, the very large exhibit of fruit is held in connection with the Royal Winter Fair at Toronto.

Such facilities and such a degree of flexibility are not possible for smaller exhibitions held in the prairie provinces. Competition may be keen but it is not so intense. What we want to do is to show the best samples we can find, of the varieties and kinds of fruit grown in the farm garden, the town lot or elsewhere. Apples, crabapples, plums, plum-cherry hybrids, sandcherries with a sprinkling of strawberries, raspberries, grapes and apricots, will comprise the exhibits.

The common black, red and white currants are shown in bunches or clusters, and the Missouri or flowering currant singly. In all cases it is necessary to secure large, clean, ripe berries, and well-filled bunches.

Gooseberries are shown singly, that is, a plate of single berries either ripe or green, according to circumstances. They, too, must be of good size and in good condition, while flavor is a very important quality with ripe gooseberries.

With the raspberry and its relatives, color, size, flavor, and particularly freshness, are important. Generally they may be shown either with, or without, the stems and calyx.

If strawberries are available, as they are from everbearing beds, they are shown with about an inch of stem attached. Again, good size, shape, firmness, flavor and uniformly bright red color throughout, are important requirements for winning.

Apples and crabapples ought to be at least above minimum size (two inches for standard apples, ranging upwards according to the variety), and as well colored for the variety as possible. Stems should be on the apples, and all apples should be wiped before placed on exhibit.

With plums, the stems should be left on, the plums very carefully handled so as to retain as much of the natural bloom as possible. Size, flavor and freedom from blemishes of all kinds are important. Plum-cherry hybrids should be shown with stems, and otherwise the same consideration as for plums should obtain.

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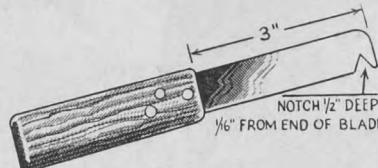
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Workshop In August

Everything must be ready before harvesting begins

Shaft Cleaner

This type of knife should be carried in the tool box of every binder and combine. It is used to remove straw and string which has wound tightly around rotating shafts. A butcher knife can be adapted for use as a shaft cleaner. Cut down the blade to about three inches long, then file a notch



NOTCH ½" DEEP
3" FROM END OF BLADE

near the outer end and sharpen the edges of it. Round off the back corner of the blade which will be used to pry against. When the end of the blade is slipped under the wrapped material the handle of the knife is pulled back, causing the straw and twine to enter the notch and be cut.—M.C.T.

Rubber Hammer

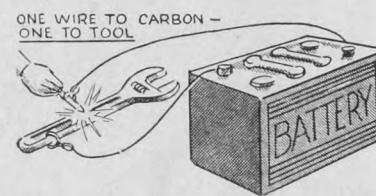
Sometimes one needs a rubber hammer to pound on polished wood or on metal surfaces which are not to be marked. Slip a cane rubber tip over the head of the hammer and use it like solid rubber. The shape of the hammer head is perfect for holding on the rubber tip.—E.L.N.



RUBBER CANE
TIP

Marking Tools

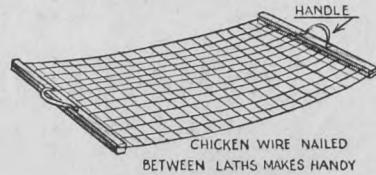
I mark my tools with a neat indelible mark which can only be removed by filing. To do this use a storage battery with heavy clips and wire



attached to each post. Ground one wire to the tool. Fasten the other to an electrode which can be made by sharpening the carbon post from an old dry cell. Since the carbon rods soon get very hot it is handy to have replacements. This works particularly well on chrome or vanadium tools.—G.M.

Straw Carrier

This light straw carrier saves time and trouble in moving armfuls of straw or hay from one building to another or from a straw pile. A piece of light poultry wire is used. It should be four feet wide and of about the



HANDLE
CHICKEN WIRE NAILED
BETWEEN LATHS MAKES HANDY
STRAW CARRIER

same length. Nail it at each end between two four-foot strips of lath and provide handles for the lath by twisting on some heavily insulated wire. The carrier not only permits the moving of a larger load but prevents spreading the straw all over the yard.—L.C.D.

Pail Handle Grip

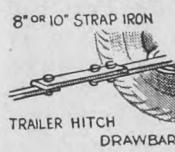
Some pails are not provided with grips on their handles; others have them broken or burned off. Grips can be made from short pieces of thick-walled rubber hose. To install them it is necessary to straighten one end of the wire handle while the hose is slipped over. The wire must then be hooked back in the ear of the pail and bent to its original shape.—R.L.J.



RUBBER HOSE

Tractor-Trailer Help

It is much easier to control a trailer, wagon or implement in backing it up if the tractor drawbar is extended.

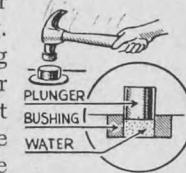


8" OR 10" STRAP IRON
TRAILER HITCH
DRAWBAR

By this method a slight change in the direction of the front end of the tractor has more effect on the steering of the vehicle being backed up. I use a piece of strap iron which is bolted solidly to the drawbar of the tractor and increases its length by about 10 inches.—B.A.M.

Removing Bushings

Bushings can be removed from blind holes by using a simple principle of hydraulics. Pour some oil or water into the center of the bushing. Make a close-fitting plug of hardwood or metal and insert it in the bushing above the fluid. Strike the plug a few sharp blows with the hammer and the bushing will be forced out of its casting. This system has the advantage of not scratching or marring the bushing or casting in any way. It will also recover a bushing which would otherwise have to be destroyed in removal.—W.F.S.



PLUNGER
BUSHING
WATER

Babbitt Ladle

Cast iron pistons can be made into useful babbitt ladles. A bent pipe can be inserted in the wrist pin hole to serve as a handle. Grind or file a notch in the side of the skirt—this will act as a spout for pouring. As a melting pot this ladle can be used in a forge, with a blow torch or in a clean furnace fire.—W.H.S.



BENT PIPE FORMS HANDLE
NOTCH FOR POURING
DISCARDED PISTON

Securing Grease Cups

Grease cups on fast-moving machinery will sometimes shake loose. Those on mower pitmans and connecting rods of stationary engines are particularly troublesome. To hold them securely, use a small coil spring. If the cap turns loose from the body of the cup, put the spring inside with the grease and cut it long enough to give it some compression against the cap. If the whole unit is coming loose from the casting place the coil over the stem of the grease cup to cause binding with the casting.—H.N.W.

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Newcastle Disease Control

THE promptness with which control measures were brought to bear in the Fraser Valley of B.C., and their success in controlling the outbreak of Newcastle disease, speaks well for the veterinarians of the Dominion Department of Agriculture.

The disease is a virus infection which affects the nervous and respiratory systems of birds. It may result in heavy mortality or seriously impaired egg production. It is currently prevalent in the United States, and the fact that it may be carried by wild birds, through infected poultry and egg crates, and through the introduction of new breeding stock from infected sources, makes it dangerous.

Properly prepared vaccines are thought to have some value in protecting birds from its ravages. However, the use of vaccine would interfere with the diagnosis of the disease when it did occur, according to Dr. Thomas Childs, Veterinary Director General, Ottawa. In laboratory tests vaccinated birds would react as would infected birds. The importance of this fact may not be immediately apparent, but what it would mean is that the disease would be perpetuated in Canada, and flock owners would have to vaccinate all birds, or face the danger of infection. The present policy is to eradicate the disease completely, by means of destroying all infected flocks. This policy has been successful in eradicating from Canada dourine, rabies, glanders and hog cholera, and is doing the same with bovine tuberculosis. At present there is no reason to believe that it will not be equally successful in the eradication of Newcastle disease.

In B.C. the disease was identified and its presence confirmed by laboratory procedures. Birds which have been in direct or indirect contact with the disease are potential carriers. All birds or materials that might spread the disease and so menace the poultry industry were destroyed and either burned or buried, the premises thoroughly disinfected, and the owners compensated.

Watch For Coccidiosis

WHEN young birds are exposed to warm, damp weather, coccidiosis is a constant danger, and flock owners must be alert. If chicks are droopy, their appetite is poor and blood ap-

pears in the droppings, corrective measures should be taken at once. Sulpha drugs, preferably in the soluble form, are easily administered and effective, says F. F. Higginson, Acting Poultry Commissioner, Alberta Department of Agriculture.

Waterbelly in Poulets

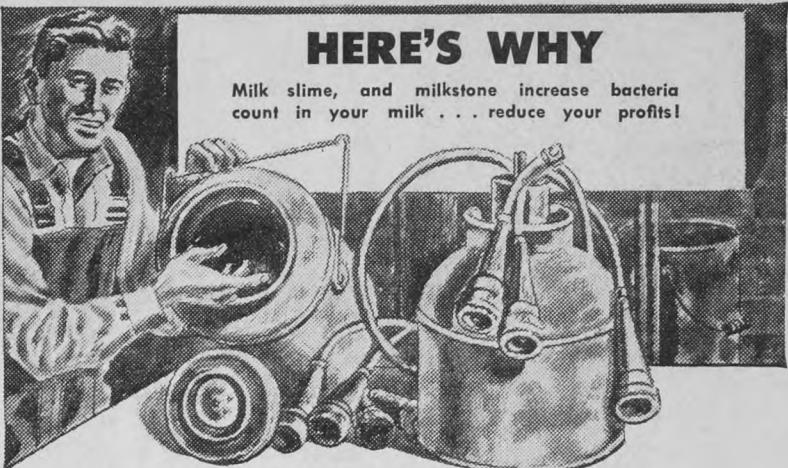
LOSSES of turkey pouls through waterbelly (technically known as abnormal dropsy and subcutaneous edema) were quite heavy in certain parts of western Canada last year. It affected pouls between the ages of eight and 22 days. There were no definite symptoms in the flocks affected, other than excessive thirst of the birds affected. When the birds were opened there was a large quantity of water beneath the skin, in the abdominal cavity, heart sac and lungs.

Investigations at the Alberta Veterinary Laboratory have led to the belief that the condition is due to the excessive intake of sodium salts. These salts are traceable to both water and feed. The well water on many farms is quite high in sodium salts. The method of feeding can also be responsible for a large intake of sodium salts. When new feed is added on top of old, the salts often accumulate. Common salt—sodium chloride—tends to be heavier than other feed constituents so filters to the bottom of the trough. If old feed is left in the trough these salts are allowed to build up, and the pouls eat a relatively large amount of salt at each feeding.

If both feed and water are high in sodium salts a vicious circle can be set up. The birds get thirsty from eating salty feed and drink water. The water also frequently contains salts and so the bird tends to drink even more. The sodium salts hold water in the tissues to such an extent that the poult finally suffocates because its lungs fill with water.

Two things can be done to prevent abdominal dropsy, advises Dr. C. H. Bigland, Alberta's veterinary pathologist in poultry diseases: if it is thought that well water is high in sodium salts, give pouls rain or river water until they are at least 22 days old; also, when feeding the pouls, either remove the old feed from the trough and feed it to older birds, or mix it very well with the new feed so that salts are not built up in the bottom of the trough.

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3. Replace sealing rubber and suck a pailful of boiling water, or sterilizing solution, through machine. Shake well, dismantle and leave all parts to dry.
4. Just before the next milking, suck boiling water or sterilizing solution through reassembled unit.

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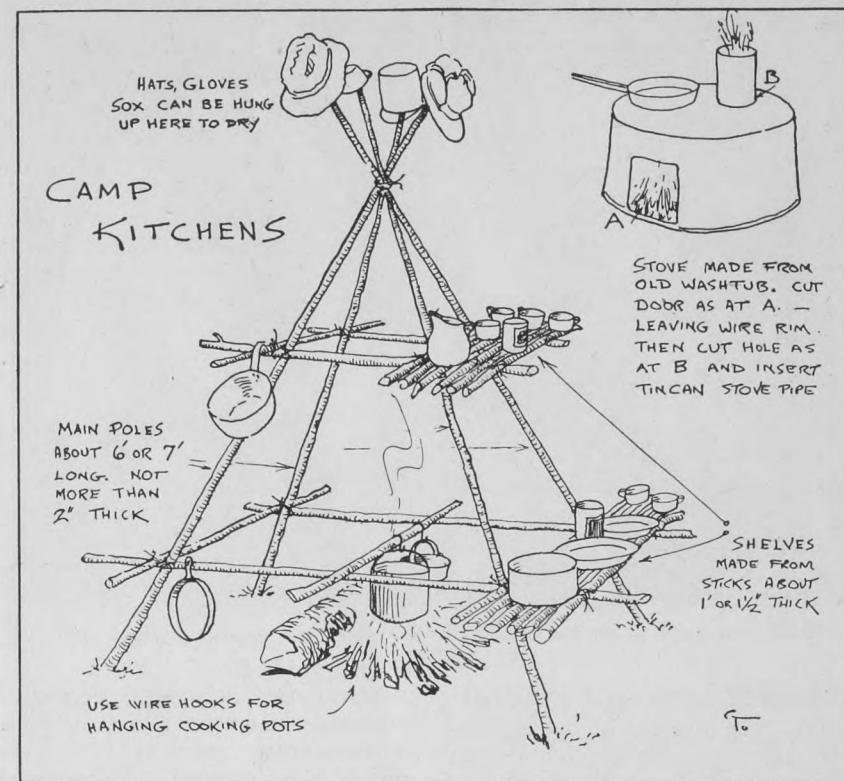
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be small, the poles can be tied with cord or spruce rootlets though wire is best if you have it.

The washtub stove is a very good stove indeed, whether you camp in the woods or your own back yard. It can be made from any kind of large can or boiler as long as it has an opening in front and a hole in the top for a stovepipe. Take care always to make the fire on clay or sand so that there is no danger of it spreading.—C.T.

Uniforms In Alberta

THOSE responsible for directing club work in Alberta have been anxious to have uniforms available for club members. The girls have had uniforms for some time, but it is only recently that a uniform suitable for club boys has been agreed upon.

The uniform consists of a maroon sports shirt with the national club crest, grey flannel trousers and a grey gabardine tie. A maroon V-neck sweater that is considered suitable for both boys and girls is also available.

It is hoped that the use of uniforms will serve to unite club members throughout the province, and stimulate a greater pride in club work and programs. At the same time it will add a measure of distinction to club activities.

tion from extension specialists. The next day they spend judging grain, poultry and hog carcasses and grading cream, see a ball game in the afternoon, and in the evening take in the grandstand show.

During the rest of the week they have a competition in the identification of weeds and crops; are given a farm machinery demonstration and hear a talk on the lubrication of farm machinery and engines; tour the city; visit the forestry farm; and assist in the parade of livestock champions at the fair. The whole program is designed to give the boys a holiday, and at the same time give them more education useful to them when they go back to the farm.

Girls Admitted

IN New Zealand there has been discussion for a number of years as to whether or not girls should be allowed membership in Young Farmers' Clubs. It has finally been decided that, with certain restrictions, they should be allowed to belong.

One of the restrictions is that girls shall be admitted only when there is an insufficient number to form a country girls' club. There must be a minimum of five active members to form a club. Girls are to become "independent" members of the Federation of Country Girls' Clubs and "associate" members of the Young Farmers' Club. The minimum age for girls will be 16 years. It will be up to the club concerned to make the final decision as to whether or not they will admit girls into their local club.

Educational Holiday

THIS year the Exhibition Board at Saskatoon received more applications from farm boys who wished to come to the camp, regularly held during fair week, than they had ever received before. Accommodation was extended to permit 150 boys to attend.

The camp is held under the joint auspices of the Saskatoon Exhibition, the University extension department, and the provincial and federal departments of Agriculture. The object is to permit the boys to see the displays, exhibits and amusements of the fair and at the same time gain further education in agriculture.

The boys spend the first day of the fair at the University receiving instruc-

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Korea

Continued from page 7

to the rest of the country; mine operations were being extended and new mineral deposits opened. Industries that were forced to suspend operations in 1948 when the Russians turned off the power from the north were getting back into production. Steam facilities were being extended and new hydro-electric projects designed to increase available power were under way. One result of these industries was that there were more products to meet local needs.

A GRICULTURE was also beginning to recover in the South. Fertilizers were imported from abroad, so that large imports of grain were reduced. Indeed, it was expected that in 1950 not only would South Korea supply its own needs, but would have something for export. This progress had been made under the American military government and later by the South Korean government, with ECA assistance.

To the north of the 38th parallel individual liberty had been stressed to a lesser degree. The Russians occupied the country until such time as communism was firmly entrenched and then left, leaving a Korean communist government in absolute control. While South Korea was feeling its way in its newly found democracy, the north was re-enacting the procedures that have become so familiar in the countries dominated by communism dictatorship.

It would be a mistake to suppose that all was sweetness and light in the

to the North, and there have been pro-Northern mutinies among the police. It cannot be suggested that everyone in the South was contented, and everyone in the North repressed. Nevertheless, it can be asserted that in the long run the prospects were that the South would achieve a reasonably adequate and satisfactory way of life, and freedom would be achieved and nurtured.

Speaking geographically this peninsula is a land of mountains and valleys. A great chain runs from north to south near to the east coast, throwing off spurs to the south and west until it sinks into the southern waters, becoming a very numerous archipelago, the largest island of which is Quelpart, off the southern coast. All the large rivers have their origins in these mountain ranges and flow to the south and west coasts. Some of the rivers are navigable for a distance of 100 miles or more. The drainage divide is only about 15 miles from the east shore.

A Canadian farmer who went to Korea to farm would find himself faced with many changes. Most western Canadian farmers are specialists, raising cereal grain, livestock, forage crop seed, poultry, or what have you. In very few instances do they have more than two or three large income-earning projects on their farms. Not so the Korean farmers. In most cases a Korean farmer is virtually self-sufficient. He raises his own food, and the womenfolk spin and weave cotton, silk and hemp. Protein for the diet is provided by soybean products, fish, chickens and eggs. Almost every vil-

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American signal troops erecting a field telephone line. The background presents a typical Korean agricultural scene.

southern segment of the country. The president, Dr. Rhee, had fought for Korean independence for most of his life, and he apparently developed an extreme intolerance of anyone whose concepts of the destiny of South Korea did not coincide with his own. For one reason or another there were 14,000 political prisoners in the southern section at the time of the invasion. The assassination of the leader of the opposition was hardly according to the dictates of free democracies. Some of the Southern leaders have openly favored accession

large has a potter and a blacksmith, and they provide for some farm needs. The farmer barters some of his products for dried and salted sea fish, matches, rubber shoes and tobacco.

The climate in Korea is not unpleasant, and is not incompatible with the growth of good crops. The mean summer temperature in Seoul is 75 degrees F., and the mean winter temperature is 33 degrees F. During the winter the temperature does occasionally go below zero. The annual rainfall is about 40 inches, a large proportion of which falls during the

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CANADA

rainy season in July and early August. The important rice crop depends in large part on heavy precipitation during this rainy season.

Korean farmers raise cattle, horses, swine and poultry. It is an interesting fact that virtually no dairy products are produced. Rice is the most important field crop. As long ago as 1927 the production was 85,000,000 bushels, and this figure has been increased by the nudging and compulsion of the Japanese invaders' desire for food. Cotton is also an important crop. Other crops grown include millet, barley, tobacco, sesamum, peppers, potatoes, soybeans, ginseng and others. The raising of mulberry bushes for the feeding of silk worms is largely associated with Japan. Nonetheless, it is well established that the Japanese learned the ancient art of silk production from the Koreans. Groves of mulberry trees cover hills that are unsuitable for rice culture. Three crops of silk are produced a year.

Ginseng, mentioned above, is a crop that is not familiar to most farmers on this continent. It provides a medicine that is greatly prized by the people in the Orient; it frequently sells for more than its weight in gold. Some of the finest grown is raised in Korea, especially in the area around

the town of Songdo. The plants have curious, man-shaped roots. They are cultivated in specially prepared beds, where for seven years they are protected from the sun and the beating rain by reed blinds. At the end of this time the roots are dug up and steamed, dried, carefully trimmed and then marketed to work their alleged cure on the populace.

If at all times the Koreans had been left alone to work their fields and mines and breed their cattle and horses and to enjoy the pleasures of their salubrious climate, they could well have worked out for themselves a happy and satisfying way of life. Their destiny was quite different. They stood in their fields and on their streets and, with joy in their hearts, watched as the long shadows cast by the yellow sun that typified Japanese Shintoism and oppression disappeared from their land. As they turned away with their new borne hope still dewy from its birth they saw, to their alarm, the red, ominous cloud of communism building up thunderheads on the opposite shore, and divined that the long tentacles of communist imperialistic aspirations would soon attempt to embrace their land and tear away their longed-for freedoms. The cup that they had hoped to drink was dashed too soon to the ground.

Ballet Of The Bees

Continued from page 8

were somewhat like a figure-of-eight with one loop turned on top of the other. With the food source close by, the two loops of the figures-of-eight practically coincided; but as the distance lengthened they gradually separated. At about one hundred yards the bee formed a broad figure-of-eight.

The foragers would touch the scout with their feelers, taste her food, and imitate her dance pattern. Then they sped off to seek the same food within the distance indicated.

Each forager brought in her load and went through the same routine. As more and more enlisted in their field force, they danced less and less vigorously. With enough helpers for the job the requests for aid ceased.

THIS was but the elementary part of the language. The idiom grew more complex as the bee communicated distances of more than one hundred yards. She might have to collect nectar two miles away. Thus with her sign language she had to locate a point somewhere within an area of more than twelve square miles. And when she did just that, von Frisch checked and rechecked his tests. It was this accomplishment of the bee that caused some to speak of mental processes going on in her head.

Back from a successful exploratory tour more than a hundred yards from home, the scout performed the other major variation of the "dance of the bees." The professor named this the "tail-wagging dance."

It began with a semi-circular run on the vertical comb. Next the bee strutted in a straight line. This brought her back to her starting point. Then came another semi-circular turn, this time the opposite way to the first. If she described her original semi-circle in a clockwise direction, she

described her next counter-clockwise. A diagram of her course roughly showed a complete circle divided by a straight line, termed sometimes a broad figure-of-eight. This process was repeated continually with time out for her audience to get a sniff and taste of the nectar. On the straight run only did she get in her tail wagging.

Here, says von Frisch, is how the tail-wagging dance should be interpreted:

On the straight run the bee is telling the direction of the nectar source. To impart it she relies on the position of the sun in its relation to the nectar source and to the hive. The simplest example is when the food supply is located on a direct line between the sun and the hive. The bee then runs straight up the hive comb between her semi-circles. With the source directly behind the hive from the sun, she runs straight down the comb.

But when her food is not in a direct line with the sun—either in front of, or behind, the hive—the small creature must solve a more difficult problem. If from her hive the sun is due south and the nectar source off to the southwest, the bee relays the direction by running up the hive comb at an angle of forty-five degrees to the right of the vertical. In effect she is saying: "You foragers must fly to the right of the sun at the angle I am making from the vertical." They understand and follow her instructions!

The hive can be standing in any position. The bee doesn't just point her runs toward her new found food supply. Actually, on a vertical wall she transcribes the horizontal angle between her hive, the flower patch, and the sun. As the day wears on and this angle changes, each incoming insect alters her straight run to conform to the sun's position.

A cloudy day doesn't affect the insects' gift for language. In his studies of their senses, von Frisch found they could detect the sun's

position even through a heavily overcast sky.

While the bee gives direction in her straight runs, it is by means of her semi-circular turns, and her tail wagging, that she communicates distance. In his analysis of the tail-wagging dance, the professor related that when his sugar syrup was a hundred yards from the hive the bee would make ten short semi-circular turns every fifteen seconds. At three thousand yards, she made three long semi-circles in the same time. The tempo of her tail-wagging also changed. With a food source one hundred yards away the wag count was forty to the minute. At 1.8 miles it was only one to the minute.

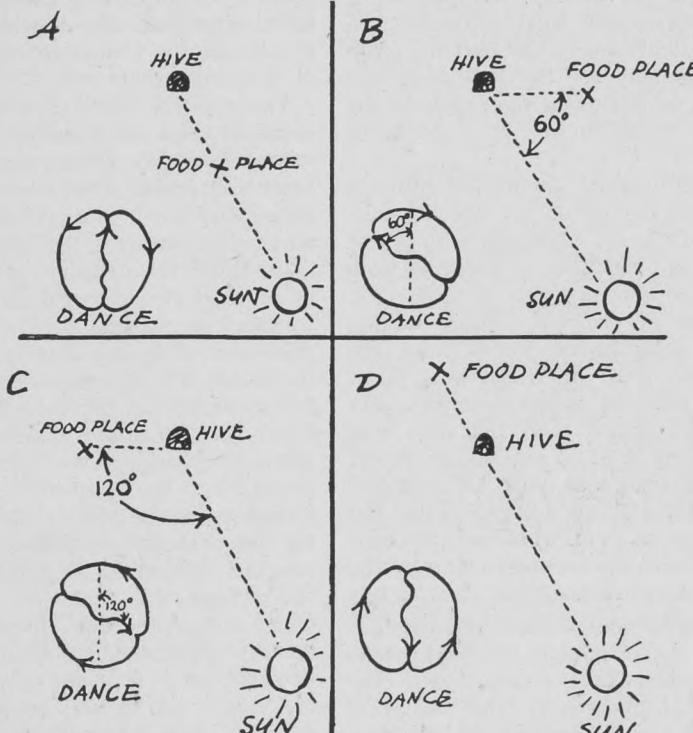
Von Frisch sat by his observation hive with a stop watch and timed the movements. He reckoned the angle of the straight runs. In this way he could place the feeding spot indicated.

The direction the bees communicated was accurate to about three per cent, and the distance to a little over 100 yards, on the average. The dance

the plants with an aromatic substance they liked then put some of it in sugar water at their hive. Again, a pollinating job was done.

Some startling production figures came out of California experiments last year. A governmental station concentrated a large number of bee colonies on a 140-acre plot of alfalfa. It had previously averaged between 265 and 275 pounds of seed annually. Plants attractive to bees around the alfalfa were eliminated. The 140 acres were practically saturated with pollinators—700 colonies were set to work. Result: seed output bounded to 1,000 pounds an acre!

Over in Iowa the demand for the insects has been so great that beekeepers have become experts in pollination. In point of fact, one of agriculture's new callings is developing with honey little more than a by-product. No longer do the beekeepers simply rent out their colonies to the farmers. Instead, they undertake several services. With their own equipment they spray the forage crop,



These diagrams provide four examples of how the scout bee communicates to her hive mates the direction of a new batch of flowers. The sun in each instance is to the southeast of the hive. Diagrams in the left hand corners give the direction of the tail-wagging dance for the position of the food.

effectively recruited new bees to a food source up to about three and a half miles away!

THESE discoveries pointed to a more efficient employment of one of the few insects directly controlled by man. The Austrian scientist lecturing at Cornell University, Ithaca, N.Y., last year at the invitation of the American Society of Zoologists recounted increased yields of forage crops up to 50 per cent through use of honey bees. Since the war the British and Soviets have been applying his methods. First to report results on large-scale direction of bees to specific crops have been the Soviets. Their journals cite similar yield increases to those of the Austrian, about 50 per cent for alfalfa and even higher for red clover.

The technique was to place dishes of cane sugar syrup scented with the blossom of the particular legume at the entrance of the hive. Scout bees then seek the flowers of that scent and through their dancing pass on the information to the colony.

Von Frisch has even set bees to work pollinating plant blossoms they don't normally visit. He sprayed

provide pollinators to fertilize it, and harvest it with their combines. Their take is a 50-50 division of its sale.

Some forage crop men here still doubt the honey bee's efficacy on alfalfa. They tell you that while this insect seeks the nectar it neglects the pollen. The honey bee is not usually a factor in alfalfa cross-pollination. A keel-shaped floral arrangement holds the pollen and stamens. The insect can get caught in the flower sometimes when it goes after the pollen, but not the nectar. It is apt to make off with the nectar and look to various weeds for food for its young.

When you cite the California research on alfalfa, the skeptics say the results were accomplished only after other blossoms competing for the bees' favor were out of the picture.

Others, particularly the bee experts, are more optimistic. They reckon that if you turn enough insects loose on the alfalfa you will get the blossoms fertilized.

It appears the key player in the marriage ceremony of the flowers may soon take a larger place among the domestic creatures working for our farmers.

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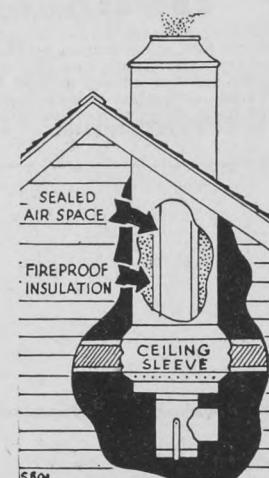
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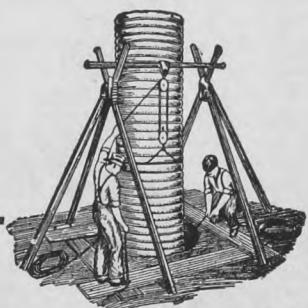
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• This feature is furnished monthly by United Grain Growers Limited

MONTHLY

Final settlement on wheat deliveries for crops of the past five years is expected before many months, to cover wheat delivered up to July 31. Farmers have already been paid on the basis of \$1.75 per bushel for each of the five crops in question. The Wheat Board will undoubtedly have on hand something more for distribution, probably slightly more than five and less than ten cents per bushel. Whether that amount will be supplemented by a payment from the Treasury of Canada is a question still to be settled. The views of United Grain Growers Limited in respect to the final settlement are set out in a statement issued by J. E. Brownlee, president, on July 14 after a meeting of the Board of Directors of the Company in Calgary. The statement, which has been transmitted to the government, is as follows:

"Western wheat producers will justifiably be greatly disappointed if the forthcoming final settlement on wheat deliveries of the past five crop years is only for the few cents per bushel remaining in the hands of the Wheat Board from the proceeds of sales.

"Such amount should be substantially supplemented by the Government of Canada to recognize the great extent to which farm incomes were restricted during three of those crop years by government policies limiting wheat sales prices. For a time, the domestic price of wheat was much lower than its value in export. Far more important than that fact was the ceiling of \$1.55 imposed on export sales. During one year that applied to all exports and during the two following years to all wheat sold to Great Britain under a contract made by the Government of Canada.

"Western farmers are not committed to concurrence in the final results under the wheat contract with the United Kingdom by the fact that when it was made they did not criticize it greatly. Any apparent acceptance of the contract was based on a belief which, until a few weeks ago they were encouraged to hold, that the contract terms protected them against great losses due to the low price set for the first two years. Now they are told that no compensation is recoverable from the United Kingdom under the 'have regard' clause of the contract upon which they formerly relied. Thus, they have every right now to look to the government for reasonable recognition of the burden imposed on them by government policy.

"While the full extent of losses imposed on wheat farmers during the five-year period cannot be calculated, it is beyond doubt that they have been very great. That fact will justify as large a payment as can now be made from the national Treasury. No doubt that will fall far short of putting farmers in as good a position as if the contract with the United Kingdom had not been made. Producers will, therefore, have a continuing claim against the government, to be taken into account when minimum wheat prices represented by Wheat Board initial payments are established in future years. These should be established on a reasonably remunerative basis instead of being set at the mini-

mum level under the International Wheat Agreement, which could be construed as designed to protect the Treasury against possible losses."

Domestic Price For Wheat

The domestic price of wheat for the crop year 1950-51 is to correspond from time to time with the prevailing price applying under the International Wheat Agreement. That announcement, made recently by the Rt. Hon. C. D. Howe, Minister of Trade and Commerce, conflicts with the recommendation of the Canadian Federation of Agriculture to the Government of Canada. The Federation had asked that the domestic price for the coming year be maintained at the maximum under the International Wheat Agreement. The announcement has already occasioned some criticism in western Canada. It remains to be seen whether eastern farm organizations, members of the Federation, who may be hoping for cheaper feed wheat, will continue to support the former representations of the Federation.

During the past crop year the domestic price was based on \$2.00 per bushel, basis No. 1 Northern in Lakehead and Pacific Coast terminals, to correspond with the price charged under the contract to the United Kingdom. When the British contract came to an end it no longer provided a yardstick for determining the domestic price and some new standard had to be chosen. The maximum price under the International Agreement is now \$1.98 in Canadian funds of the present exchange value, which corresponds with the price of \$1.80, basis former exchange value, stipulated in the International Agreement. At the moment the maximum price prevails on wheat sold importing countries which signed the Agreement. Consequently any immediate change in the domestic price, or in the price of flour in Canada, will be very small.

There is no guarantee, however, that the maximum price will prevail throughout the crop year and that some time the Wheat Board might find it necessary to offer wheat at a lower level, anywhere down to \$1.54, which is the minimum price for this year under the International Agreement. If and when that occurs there will, according to Mr. Howe's announcement, be a corresponding change in the price of wheat sold for consumption in Canada.

Ever since September, 1943, when the government closed the wheat market, it has had to assume the responsibility for determining the price of wheat to prevail in Canada. That has been a fixed price prevailing throughout the crop year except for 1947 when it was advanced during the year from \$1.35 to \$1.55.

Now there emerges the possibility of a fluctuating domestic price. If that does develop it will create some special problems for the milling industry, and for the Wheat Board in its relations with Canadian millers. Under open market conditions the mills were accustomed to protect themselves by operations in the wheat market against possible fluctuations in the price of wheat. Now that such practice is not available to them they will have to rely upon the Wheat Board for such protection.

COMMENTARY

It is possible, also, that buyers of feed wheat in eastern Canada and in British Columbia will encounter some problems in case the price of wheat does fluctuate. Over a long period they have become used to wheat prices not subject to variation throughout the year. Now they will have to plan operations in the light of the fact that prices of feed wheat or milling by-products may decline from the present level, and if they do decline they will have to face the possibility of a subsequent rise. If the crop now in prospect contains any considerable quantity of low-grade wheat, another problem may emerge. During the past seven years the Wheat Board has been able to maintain fixed spreads between different grades, and to market different grades at the same spreads as set in its initial payment to producers. This year, however, it may find difficulty in maintaining uniform selling spreads, and some adjustments may come to be required from time to time.

Strong Grain Prices

Grain markets have been showing strength unexpected a few months ago, in spite of large yields in prospect both in North America and in Europe. This is reflected in quotations for all grains on the Chicago market, and in Winnipeg for coarse grains, and also by the fact that wheat sales under the International Agreement continue to be made on the basis of the maximum price of \$1.98, Canadian funds. Chicago wheat for delivery next May recently touched \$2.35, 55 cents above the level in American funds, of the International Agreement, and well above the support price. The war in Korea, and widespread fear of possible trouble elsewhere, have exercised a double influence. On the one hand buyers show a greater eagerness to lay in supplies and owners of grain a tendency to hold. That effect upon supply and demand would have a marked effect quite apart from any prospect of inflation. To that effect is added expectation that expenditures on war and defensive measures will have large inflationary effects, tending to reduce the purchasing power of dollars and of other units of currency.

The total population of Korea, North and South, is approximately thirty millions. It is impossible to contemplate the actual destruction and disturbances caused by war among so large a population, without realizing that sooner or later there may be large needs for food imports.

Not long ago there were prospects that a substantial wheat surplus was in the making and that the combined production of the United States and Canada this year might give much more wheat than could be disposed of within any short time. The Government of the United States, however, instead of being disturbed over such a situation has taken steps to encourage production in 1951 by calling for an increase in wheat acreage, quite likely to be brought about under present price levels.

All recent reports from Western Europe have been of satisfactory crop progress. However, the danger, always feared there, is of a wet harvest, and the crop is never regarded as safe until it is garnered.

Feed Buyers On Warpath

A meeting of eastern farm organizations, members of the Canadian Federation of Agriculture, held in Montreal July 20, decided to press for a change by the Canadian Wheat Board in methods of marketing oats and barley, with the abolition of selling for future delivery through the Winnipeg Grain Exchange. They intended to press this point of view before the next meeting of the board of the Federation to be held during September.

This marks one more step in a campaign by eastern buyers of feed grain to have oats and barley handled more in accordance with their ideas. Before these grains were turned over for exclusive handling by the Wheat Board, easterners were great advocates of the change. Undoubtedly they expected that as soon as the Wheat Board took charge they would find uniform prices for feed grains prevailing throughout the year. In addition, they expected the Wheat Board, as an agent of government policy, to handle oats and barley with a view to promoting the interests of livestock feeders. The idea of a uniform price for feed grain throughout the year arose from their experience with feed wheat under Wheat Board handling, as well as from the fact that during the period of price ceilings uniform prices for oats and barley, at the ceiling, had prevailed most of the time. Moreover, during a number of years they had got used to the idea of a prohibition by the government against the export of feed grains to the United States in order to conserve supplies for Canadian use.

There was consequently both disappointment and complaint last fall after the Wheat Board began handling oats and barley to discover not only that prices were fairly high, as a result of American demand, but also that they fluctuated from day to day. Partly for that reason and partly because farmers there followed their usual practice of using up home-grown feeds before buying western grain, there was very little buying in the east. That reluctance to buy continued even during those winter months which showed price declines from earlier levels. Then in the spring when eastern feeders discovered they could no longer delay they found that prices had moved up again because of American demand and other conditions affecting the market. Partly, this was a direct result of the new method of handling, because increased prices did not have their former effect of bringing out additional supplies of feed grain. The western farmer, knowing that he was going to get the same price no matter when he delivered his grain, tended to delay deliveries until it suited his convenience to haul. Consequently there was for a time a fairly acute shortage of oats and barley.

At times attempts have been made to bring political pressure on the government and the Wheat Board to give more consideration to the interests of feeders and less to those of the producers. This is probably an inevitable consequence of handling through a Board appointed by the government.



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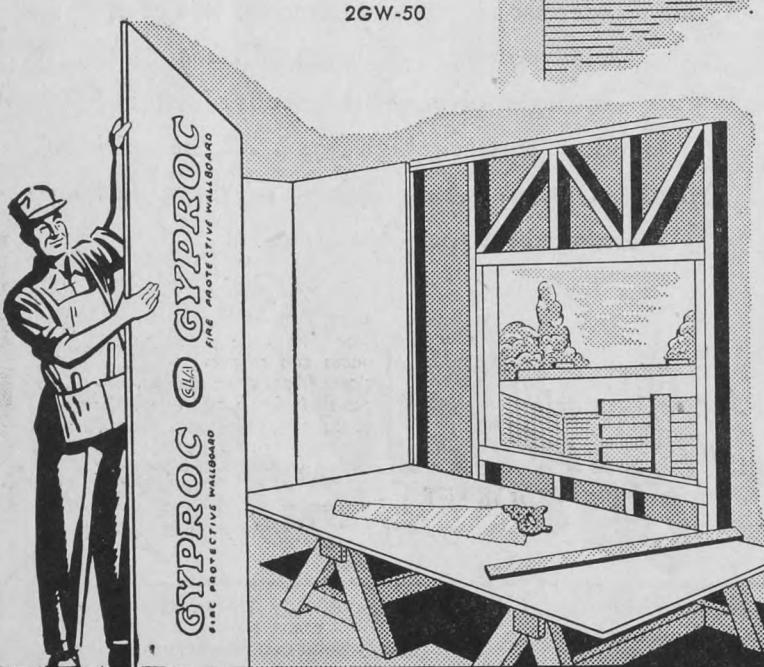
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Flood Aftermath

Continued from page 11

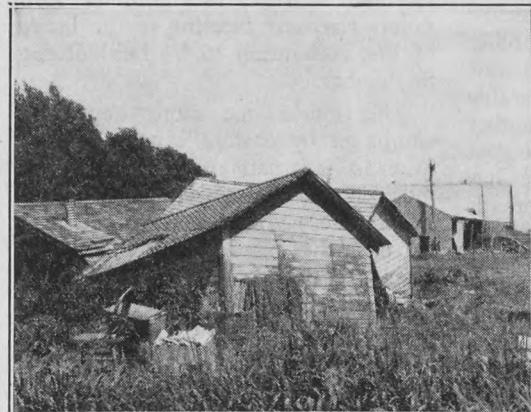
away, taking a table, some lamps and the patchwork quilt that his mother and sister had not quite completed. His newest granary—two years old, had been overturned. He walked through slippery muck and silt to find that the garage had collapsed and parts of the milk house and ice house had fallen into the pit that had been

vest a bit of grain if good drying weather allowed him to get on the land and if the fall frosts did not come early.

With the assistance of service men from one of the machine companies, he reconditioned the tractor. The starter, generator and voltage regulator were each removed, stripped and cleaned with pyrene and light oil. New points had to be installed. The carburetor, distributor and air cleaner were treated in the same manner. The head of the motor was then removed and after a thorough cleaning, was well oiled and reassembled with new gaskets. The crankcase was drained and filled with a mixture of half kerosene and half S.A.E. 10 motor oil.

After the motor had run for 15 minutes, this flushing solution was drained out and the motor was refilled with the correct grade of oil. The transmission was flushed in the same way with kerosene. Wheel bearings were checked since many units had been found to be washed dry of grease; the Lewis tractor had not been, but was thoroughly lubricated nevertheless. The service men then reconditioned the combine. It was given similar treatment but required more time as the motor was more difficult to work at and all gear boxes and wheel bearings had to be flushed and refilled with lubricant.

With the tractor in operating condition, Lorne was able to pull the truck to town. He had placed it on the graded road before the peak of the flood. Rushing water had subsequently washed it into the ditch, where, sitting on all four wheels, it had been completely submerged. A motor boat travelling along the side of the road had struck the top of the cab. As it passed over, the propeller had grazed



The garage collapsed and the milk house and ice house fell into the ice well.

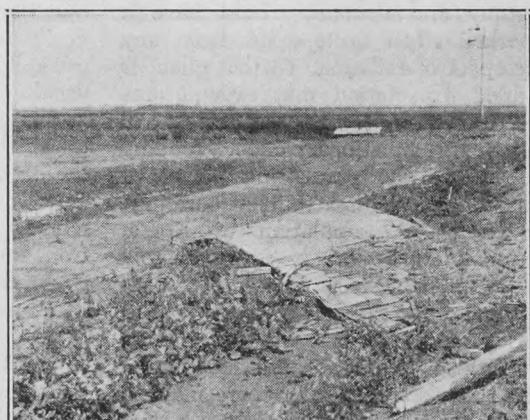
full of ice. In the barn, all but 27 of the 75 chickens had died or had got out and drowned. He decided to spend the night in the house where he could assess the damage and determine what could be salvaged.

In the kitchen the water had been three feet deep over the floor. His mother had been saving the down from some geese but the bags had burst and the down covered every room on the ground floor. The old plaster on the walls had weakened but was still holding together and the fir floors which had been there for over 30 years were only slightly heaved. Every pot, pan and utensil which had been under water was covered with a slimy coating of muck that was just beginning to rust. This mess was to come first—the house would require a lot of cleaning before his mother came back and there was no doubt that she would be there ready for work at the earliest possible opportunity.

Mrs. Lewis returned on June 25—after being away for six weeks less one day. With her she brought 20 gallons of drinking water and the determination to clean up as soon as possible and get back to normal living. "You know this is the first time in all my years on this farm that I have been able to take a holiday in the spring," she said.

Though this flood was known to be worse than that of '48, she had no idea of the extent of the damage. "Lorne had done a fine job of cleaning up," she told me, "he had the whole downstairs scrubbed and most of the furnishings back in place." Still she had to spend a whole day and three packages of steel wool to scour the cream separator. Other articles required relatively as much time.

Lorne wanted to put some crop in. Though the cattle were not back yet he would require winter feed for them. He might even be able to har-



Debris on the washed fields includes half a shed roof.

the top of the engine hood and chipped it lightly from one side to the other. The cab had been filled with about six inches of silt and the doors and windows were sprung and rusty. Even after thorough cleaning the truck was giving trouble from ignition failures and silt in the fuel line and sediment bowl.

By July 3, the machinery had been made operative and 170 acres of oats and barley had been seeded. The land was found to be very heavy and it was a case of being almost stuck at all times. The next move was to get the cattle back. From Carman they had been moved to Poplar Point, so

**Notice of Dividend No. 40****United Grain Growers Limited**

Class "A" Shares

Notice is hereby given that the Board of Directors has declared a dividend at the rate of 5% on the paid-up par value of Class "A" (Preferred) Shares (par value \$20.00 each).

This dividend will be paid on or about September 1st, 1950 to holders of such shares of record at the close of business on Saturday, July 22nd, 1950.

By Order of the Board.

D. G. MILLER,
Secretary.July 11th, 1950.
Winnipeg, Manitoba.

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Notice of Dividend No. 40**United Grain Growers Limited**

Class 'B' Shares

Notice is hereby given that the Board of Directors has declared a dividend at the rate of \$1.00 per share on the paid-up par value of Class "B" (Membership) Shares (par value \$5.00 each). This is out of earnings appropriated at the rate of 25 cents per annum in the four-year period ending July 31, 1950.

This dividend will be paid on or about September 1 to holders of such shares of record at the close of business on Saturday, July 22, 1950.

By Order of the Board.

D. G. MILLER,
Secretary.July 11, 1950.
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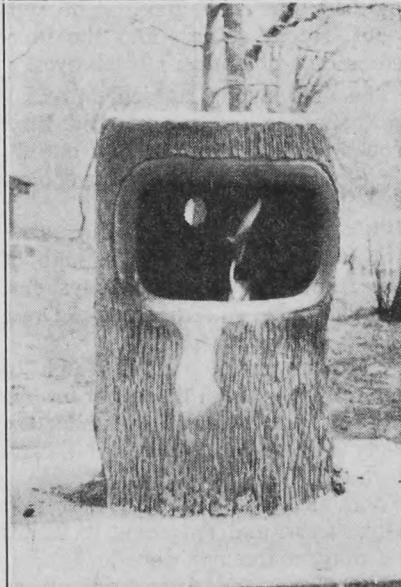
from there came the five cows and four young cattle. The grass along fence lines and roadways was beginning to grow lush, but fences had been taken away and in no place were they left in serviceable condition. The wire stretchers had always been kept in the garage—they had disappeared. A pile of seasoned posts had floated away. Improvisation has, of necessity, been the key to reclamation. So seldom can the job be done completely that hours of despair come frequently under the strain of "nothing really done right."

THE problems confronting the Lewises prevail in hundreds of other farms in the Red River Valley. But good comes out of the darkest situations. The people of the "Valley" have been brought so much closer together—not only with one another but with their neighbors on all sides—in the cities, in the other provinces of Canada and south of the border. Grants from the governments will go a long way toward repairing the houses and some of the outbuildings. The assistance from the Manitoba Flood Relief Fund will help purchase essential personal property, clothing and home furnishings.

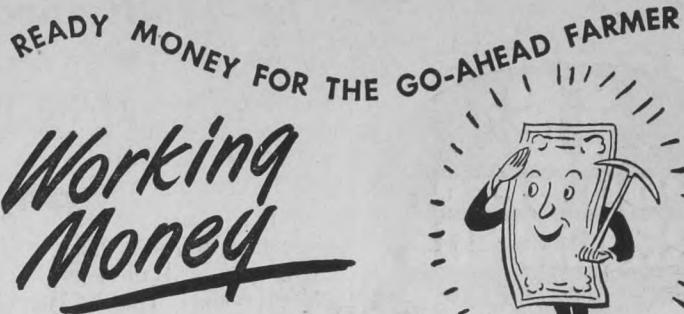
The Lewises and their neighbors feel that they have some of the best farms in the Red River Valley and that the Valley is one of the best farming areas in western Canada. Little wonder then that in spite of being confronted with what appeared to be a hopeless situation, and in spite of meeting more of these at each turn, flooded farmers and their families work harder together and with greater determination to re-establish themselves as quickly as the drying permits.

A Backyard Incinerator

REPRESENTING an old stump, this incinerator stands three feet high; its diameter is from 18 inches to two feet. The foundation upon which the concrete is built is one inch wire mesh, rolled to form a cylinder of the proper diameter. If no concrete base is to be built, this wire should be set into the earth for three or four inches.

*This tree stump is an incinerator.*

The concrete, which should be a fairly "rich" mixture, is held in place by the mesh, and when the entire incinerator has been built, the surface of the concrete is scored with a pointed stick while it is still soft, to represent bark. It may be painted with grey or brown paint for more natural effect.—Paul Hadley.



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DIRECTIONS FOR MAKING

Pour 10 oz. of Gillett's Lye into container holding 2½ pints of cold water. Stir until lye dissolves and leave to cool. Meantime melt 4 lbs. of grease, tallow or lard, and leave until nearly cool, but still in liquid form. Now slowly pour the dissolved lye into the grease (not the grease into the lye), and stir until lye and grease

desired. The longer soap is kept, the better it will be.

TO ASSURE SUCCESS

The grease must be clean and not salty, and must not be above 120°F. (warm to the hand) when the lye is added. The lye must be allowed to cool until it is no warmer than 80°F. Unless directions are closely followed the resulting soap may be streaky in appearance. If this occurs, crumble down as small as possible, return to pot, add 3 pints of water. Bring slowly to boil, stirring thoroughly, and allow to simmer until whole mass is of a thick consistency. Again pour into mold and allow to stand for at least 3 days, covered as before.

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The Trail Ahead

Continued from page 10

tance they had travelled. The thin slice of moon had set; only starlight bathed the flat plain where nothing rose to give him a landmark.

But he knew the run had been more than ten miles, and on his side, there was still no sign of Carr or Hutch Bonner. His first warning was a sudden flash of gunfire repeated in a string of shots across from him. The points of flame moved ahead, distinctly the guns of two riders, close together. By this time the running herd had strung out, and even with Joe Wheat's help he could only hold a section of it. He saw a bunch in the lead swing away, the gunfire following. They curved off at a tangent on his right, three or four hundred head with the two riders behind them, and he marked Clay Carr's grey horse. Then the outer darkness swallowed the animals and men.

In a little more time he knew the cattle were tiring, and dropping back with Joe Wheat, he said, "Far enough, I think. Let's call it a night."

ALMOST as quickly as it had begun, the stampede ended. Tired animals slowed to a walk, halted, stood blowing and then one by one they bent their legs and sank down. Once more they made a dark, quiet pool, compactly bedded.

Gathering his men, Lew found Quarternight, Bob Blade and Joe Wheat, yet no sign of Carr and Hutch Bonner with the small herd they had turned off. "They'll show up," he said. "If they don't, I'll go back at daylight."

But in the first glow of dawn, riding his circle on guard, he saw the little band coming toward him, and with it the grey tops of the two wagons.

He expected an immediate outburst. Carr passed him looking straight ahead, saying nothing. Lew reined over beside Connie's wagon. She stared up from the seat and he saw an accusation behind the red sleeplessness of her eyes.

"Lew," she said, "you started that stampede."

"You're sure I did, Connie?" he asked.

"Yes. So is Clay. Why?"

"You'll get your answer in a minute."

Barney McCann had halted his chuck wagon, jumping down to get his breakfast fire going. Quarternight, Joe Wheat and Bob Blade were coming in from the bed-ground; and Clay Carr, with Hutch riding close, had started back from throwing their bunch in with the main herd. Trouble, Lew saw, was headed his way.

It was written in the hot anger on Carr's round face. Hutch Bonner was prodding him with surly talk. He came straight in, hauled his horse to a stop. "Rand," he said, "you and I have come to a showdown."

"Just a minute, Clay," Lew asked. "Let's get the facts clear. We had a stampede last night. Maybe it was an accident."

"Accident -- --!"

"Wait. Maybe it wasn't. What's the difference? We have come in the right direction. We're even, or ahead of the Pitchfork. Now then, we can increase this lead by keeping straight north. We don't need to go back to the trail."

At Clay Carr's side, Hutch Bonner leaned forward over his saddle horn. "Talk sense, Rand! There's no water north of here." He shook his dark head and turned to Carr. "The only thing to do is turn east and pick up the old route. I know."

For a long moment Lew Rand looked steadily at him. Then he said, "There are plenty of waterholes in the North Fork of the Canadian, and if you've been over this country, Hutch, you know that. You wouldn't have some reason for putting us behind the Pitchfork again, would you?"

The man's heavy jaw tightened. "What do you mean?"

"I'll tell you what I mean," Lew said quietly, "in plain words. There's been a traitor in this camp from the start. Hutch, you're a Pitchfork man."

He knew what was coming; it was what he had asked for, and the downward drop of his hand matched the swift move of Bonner's. He heard Hutch snarl, "Why you -- --," and then for an instant he did not realize exactly what had happened. A rope

"By God, you should have!"

They sat for one brief moment looking straight at each other, and in that exchange there was some cold and deadly understanding.

Then Bonner yanked his horse around savagely. He levelled one last departing look at Clay Carr as he flung the animal forward into a lop. He rode due east toward the trail . . . and toward the Pitchfork herd.

WHATEVER it was that lay between those two, and regardless of its future threat, the fact that Hutch Bonner was no longer close, seemed to make a change in Clay Carr.

For three days Lew Rand watched that change take place. Clay, definitely, was released from some pressure, and he assumed the foreman's leadership of the Circle Dot herd in a stolid driving way. They began to make good time. But he was too quiet, Lew thought, these days, kept too much within himself; he spoke to the men only when giving orders, rode alone as much as possible, and avoided Connie even at mealtimes.

It was a complete, deliberate isolation, in keeping one way, Lew felt, with Clay Carr's nature; the set, dogged way in which he moved toward the end of any game, even a losing one.

He knew that Hutch Bonner was behind it. Yet he knew, also, that when trouble came, the whole Circle Dot would be involved. This was not Clay Carr's game alone.

But they passed the North Fork of the Canadian and continued a fast drive north day by day with no hindrance. They were ahead of the Pitchfork. He kept watch to the east and south and saw no dust sign of St. Clair's herd. Then on a breathless mid-morning, he picked out a faint ribbon of smoke against the northern horizon. That would mark the railroad; Dodge City lay just over the prairie rim. At noon, three hours later, five horsemen came up at a lop from the south.

With Quarternight he was back at the rear where both wagons had stopped and Barney McCann was out building a coffee fire. At sight of the riders he sent a long yell and crooked his arm in signal. Joe Wheat and Bob Blade raced back from their swing positions. It took Clay Carr a little longer to curve around from the point.

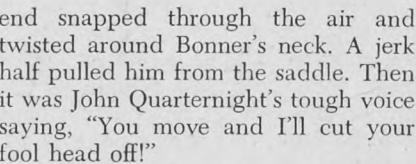
The five men were coming on fast. As Clay loped in and halted, Lew said, "Looks like they mean to charge us. What's your order?"

"The only thing left," Carr said. "We'll shoot it out." He turned a little in his saddle. "Connie, crawl back in the wagon." His eyes lingered on the girl.

But off at a hundred yards, out of pistol range, three of the men drew in suddenly. Only two came on, dropping to a walk. As dust rolled away from the three who had halted, Lew picked out Hutch Bonner's big shape among them. It was Gil St. Clair, and Two-Stripe Doyle riding his dun pony, who approached.

St. Clair led, sitting very straight, his rein hand high above the saddle horn, shoulders squared. Gil St. Clair, Lew Rand always thought, could never forget that once for a brief time he had been a cavalry officer. He was handsome enough in that false military way; tall-bodied, slim, with brown, well-molded features and a grey moustache clipped straight across his upper lip.

"There isn't a job Hinkle can do without bungling!"



end snapped through the air and twisted around Bonner's neck. A jerk half pulled him from the saddle. Then it was John Quarternight's tough voice saying, "You move and I'll cut your fool head off!"

He flipped the rope and freed it. Lew had drawn his gun and he kept it out, ready, staring into the murderous rage of Bonner's black eyes.

The man swung suddenly to Clay Carr, snarling out his blocked fury. "You want a killing in this outfit?" Then fire one of us! Take your choice! Do I stay, or does he?"

"It's all right, Hutch," Carr said. "I know. Rand, I've had enough of your trouble-making. Two days' fast ride will take you to Dodge. Draw your time and get out!"

Although keeping close watch of Hutch Bonner, from the tail of his eye Lew saw Connie stand up under the wagon's high top. "Clay, you can't do that."

Without looking at her, Carr said flatly, "I can and I'm doing it! That's one thing a foreman can do."

There came a hard, tight silence and Lew turned his gaze toward the girl.

"Lew," she said, "the time has come. It's got to be told. Clay, you can't do it, for the simple reason that Lew is half owner of this herd."

"Half owner?" Clay echoed. He stared at her dully. "When -- --"

Hutch Bonner cut him off. "You didn't know that? Well, never mind!"

"I didn't know it, Hutch," Carr said.

With his best look of stern authority, he rode in close, head up, sweeping a casual gaze over the line of Circle Dot men. He stopped in front of Clay Carr, made a waving gesture with his free hand. "A reception committee, Carr?"

"Vigilance committee is better, St. Clair," Clay told him. "If it's trouble you've come for, you'll get it."

"Trouble?" St. Clair shrugged his military shoulders. He moved his eyes along the Circle Dot line. "Not a bit, gentlemen; merely a passing visit."

LEW RAND stared past the man toward Two-Stripe Doyle, and found Doyle watching him with an intent speculation. He wondered how much of the robbery money Two-Stripe was carrying—a good split, anyway, and he hoped so, strongly.

Then Clay Carr was saying, "You've had your look. Anything else you want?"

St. Clair smiled, sure of himself, thinly veiling the mockery of his amusement. "Nothing more at all, Carr. You'll make Dodge by tonight, won't you? I'm riding in with some of the boys. Perhaps, gentlemen, we can all meet for a friendly drink." His smile broadened; he made a left-handed salute, turned and crooked his arm to the three who waited.

For an instant Lew thought they meant a stampede after all; but Gil St. Clair's game was more tricky than that. With Two-Stripe Doyle following, he sent his horse at an angle away from the herd. The others caught up, bunched with them, and they loped across the prairie, north.

From his cook fire, Barney McCann called, "Come and get it!"

Lew stepped down from his saddle and walked to the chuck wagon with John Quarternight. The old man wagged his grey head. "Looked us over, rode on to Dodge . . . what do you figure that ring-tailed hyena has got up his sleeve?"

"Your guess is as good as mine," Lew told him. "But there is one thing you can bet on. We'll know tonight."

They learned even earlier. That afternoon they crossed Mulberry Creek, and then the twisting line of the Arkansas was ahead, with the buildings of Dodge City sprawled on the north bank. It was dusk as they approached the river aiming for a camp a mile upstream from the town. The herd reached water, spread out and began to drink. Clay Carr had waved his riders back to the wagons when a cavalcade of a dozen horsemen rode from the darkening river-bottom trees.

Lew saw at once that it was none of the Pitchfork outfit, for these men looked like Kansas grangers, in blue overalls and straw hats. Their cartridge belts and heavy guns were out of place against that farm garb. Then he saw one differently dressed, in a black suit and black peace-officer's hat, and it was this one who moved out into the lead as they approached.

He halted, brushed aside one edge of his coat and showed a sheriff's star pinned to the black vest. "This the Circle Dot?" he demanded.

"It is," Clay Carr answered, "and what about it?"

The sheriff faced him, drew a folded sheet of paper from his pocket

and handed it across. "You are under quarantine for Texas fever. I've brought county men along to hold this herd."

Lew Rand swung his horse nearer. He spoke first to Clay Carr, "Plain enough, isn't it?" And then to the sheriff, asking "I suppose this quarantine applies to all Texas herds coming north?"

"No, only those suspected of carrying the disease."

"I see. And the Pitchfork, coming up behind us, isn't suspected?"

"I have no order to stop the Pitchfork herd."

Lew nodded. "Well, Sheriff, I don't know how much Gil St. Clair paid you, but we'll raise the ante \$500. Name your price."

He saw a moment's hesitation in the sharp, narrowing eyes, as if the temptation were strong; but that passed and then the man fell back upon bluster.

"I don't know what you're talking about!"

"All right." Lew rode to where Connie sat on the wagon seat, tense and furious at what this thing meant. He looked down into her face. "Never mind. St. Clair has friends in Dodge. But I've got friends there, too. Now listen. You ought to go in and take a hotel room for the night. Rest up. We'll all go in, except maybe two men to stay here with the county guard." He leaned toward her a little. "There ought to be a letter from the Fort Worth bank."

"And if there is?"

He smiled faintly. "If it has what I need, Connie, we may show Gil St.

Clair a hole-card he hasn't thought of."

YOUNG Bob Blade raised a wail of protest when told that he and Snowfoot Ryan, the horse wrangler, must stay with the herd. But Clay Carr said, "Kid, you're saving money, maybe your hide. You wait another year before you tackle Dodge."

Clay had saddled a horse for Connie, and she came from the wagon with a bundle of clothes wrapped in an oil-skin slicker. Then on the short jog into town he rode close to her, not talking, hardly looking at her; but it seemed to Lew Rand, watching them, that in the act of riding close, Clay was trying in his fashion to make something plain to the girl.

There had been no talk of any plan and Lew doubted that Clay had one; it was more his way to plug on, hoping for circumstance to give some kind of an opening.

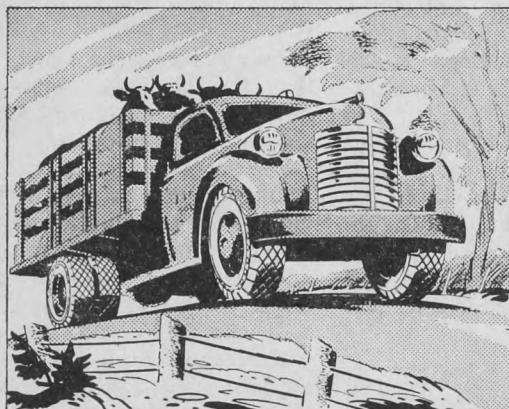
His own course was clear, depending first upon the bank's letter. With Clay and Connie ahead, John Quarternight and Joe Wheat jogging at his side, they clattered across the river bridge and into the streets of Dodge.

He turned to Quarternight. "You and Joe stick with me. Clay is going on to the Wright House to get Connie a room."

"One thing at a time, boy," Quarternight said. "It's been two dry years since I pushed my stummick up against the Drover's Bar!"

Lew grinned. "Well, sure. Get yourself a drink. Then meet me in the Wright House lobby."

Quarternight and Wheat dropped out in front of the Drover's Bar and

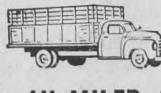


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A-51

Lew rode on alone. He saw that times had changed here in Dodge; it was still a raw, one-storey town, still had a wild frontier look about it, and felt that hard men would always gather in this place for the three things that men craved most. But the roaring turmoil of 20,000 Texas trail-drivers was gone. Horses that he saw raked along either side of the street were the work nags of Kansas grangers. And most of the men themselves, grouped at the corners or tramping the board walks, had the clothes and the bent, tired backs of farmers.

A yellow flood from the Wright House cut the street's darkness ahead of him. He saw Clay hand Connie down from her saddle and take her inside; and then five horses raked in front of the Long Branch Saloon directly across from the hotel drew him over for a closer look. They were all stamped with the Pitchfork shoulder brand. The dun ridden by Two-Stripe Doyle was among them. Satisfied, he turned the next corner and stepped down in front of the post office.

At the wicket inside he gave his name and asked for mail. When a long, official-looking envelope was slid out to him, he ripped it open; and then his tall body made its hard and quiet shape against the window's light, his back turned to the curious eyes of the clerk.

The letter was from the bank. On so large a shipment of money, they had made note of the serial numbers and the first and last were written down for him, bracketing the lot. It was all, the bank said, in new ten, twenty and fifty dollar bills.

With the serial numbers memorized, he folded the letter into his shirt pocket, left his horse in front of the post office and crossed the street to a small, weathered building. Faded black paint on a wooden door said: United States Marshal.

He opened the door, closed it, and stood in a square box room. A lamp with the wick turned low was in the middle of a neat, orderly desk. He was alone; but a black, flat-crowned Texas hat hung on a wall peg, and by it he knew that Matt Burnet still held this vital job.

THEN a rear door cracked open slightly, swung wide next moment and Burnet stood looking at him, smiling. He was a thin, tall man, very brown, with short grey hair and thick grey tufts over deep-set blue eyes.

He came forward with a loose, easy movement. His voice was soft-spoken, deceptive in its gentleness.

"How are you, Lew?" he asked. Then his smile faded. "What's this business of a Circle Dot herd being stopped this evening? I was told you were with it. Where's Tom Lee?"

Lew Rand had known this man in Texas, and Matt Burnet had been Tom Lee's friend. "Tom Lee," he said, "is dead. Killed before we started up the trail."

"Murdered?"

"Yes. I can name the man who did it, a Hutch Bonner, but I have no proof. But there's another thing that I have got, and I believe it will all hook up."

"St. Clair?" Burnet asked.

"Not directly," Lew said. "It will lead around to him, though, I think. Tom Lee had a shipment of money coming in the same day he was killed. I happened to be on the train when

that money was looted from the mail car, and afterwards I picked up some sign. One of the robbers rode a dun horse; he cut his tie rope and left a short length of it in the brush. I traced that and located both the horse and rider. You know him—Two-Stripe Doyle."

"Doyle?" Burnet repeated. "He's here in town!"

"Yes," Lew said. "So is Hutch Bonner and Gil St. Clair. What I plan is to follow my knowledge of human nature. I figure that Doyle is carrying a split of the stolen money. The first thing a man like that does when he hits town with a pile, is get into a poker game. He and the others are over in the Long Branch now." Burnet's face was tightening. "I was just over at the Long Branch. And you're right. Doyle is in a big game. What have you got?"

"This." Lew pulled the bank's letter from his shirt pocket. "That gives the serial numbers of the money. I'm sure of Doyle. I don't know exactly where Bonner fits in, or Gil St. Clair, either. But you know what Doyle is . . . if we trap him, it will go pretty far."

With only a glance at the letter, Burnet stuffed it into his own pocket. There was a heavy gun belt buckled around his waist, the holster hanging against his right thigh. He took a lighter harness from the wall rack, fastening it across his shoulder with the gun up under his left arm. Then he put on a black suit coat.

Walking outside, Lew said, "I've got two Circle Dot men waiting at the Wright House."

Joe Wheat and Quarternight were in the hotel doorway. They greeted the Marshal, and then Quarternight asked, "Lew, what's up?" He showed the sharpened edge of his drinking.

Facing across the street, Lew saw that the Pitchfork horses had not been moved. "If things are as they should be," he answered, "Two-Stripe Doyle is over there in the Long Branch playing poker with Tom Lee's money. We're going to get him." He looked around. "Has Clay come out?"

Quarternight nodded. "He went across there a moment ago."

"I wish," Lew said, "he had stayed with Connie. Burnet, I think this is the best move. Let me go in first and have a look. If the set-up is right, I'll come out and give you a signal." He was stepping down into the street as he spoke. He made an angle in crossing, then reached the board walk again and turned back into the doors of the Long Branch.

Inside, it was more like the old days; noisy, crowded, with a reckless wild note running through the waves of sound that were blended from talk, laughter, shuffling feet and the clatter of glassware and silver dollars. He pushed through the low doors and made his way casually toward the bar, but he observed the groups and faces, and the positions of certain men.

Clay was drinking with Hutch Bonner midway down the bar. Still farther, almost at the end, Gil St. Clair stood alone with his back against the edge, his eyes keeping close watch of the room.

AT the bar, Lew ordered a beer, and then with the glass in his hand he turned around, showing only a mild interest. The gambling tables were along the opposite wall. He let his gaze move over half a dozen, com-

ing back to the first one at the front near the doors. The big game was in progress there, so big that a ring of men had closed around it three deep, watching.

In a moment he walked over, still holding his glass and he had to crowd in, looking down over the shoulders of men to see the money. The Long Branch, he knew, had seen some big plays, but this one was growing toward a record. The pot made a hill of greenbacks and gold and silver in the center of the table, and even as he watched, a man droned, "Twenty, and fifty more."

The eyes of this one lifted to a player across from him. He was looking at Two-Stripe Doyle.

Doyle's sharp face was beaded, flushed. He wiped the back of one hand across it. His black eyes riveted on the money. Then he reached inside his open shirt front to a belt, drew out two bills and shoved them into the pot. In a tight voice, he said, "Fifty, and fifty."

Lew stepped back. Both of those fifty dollar bills were clean, unused. He had already seen that more than half the money in the pot was of the same newness. It was all he wanted; no forty-dollar-a-month cowboy could have earned so much on the trail.

He put his glass on the bar, walked outside, signalled across to the three men in front of the hotel. When they approached, he spoke to Burnet: "It's there. I can't be wrong. Ask Doyle for a look at his money."

Inside again, with Burnet, Quarnight and Joe Wheat flanking him, he saw an immediate shift of figures about the room. St. Clair started across to the poker game. Clay Carr and Hutch Bonner turned from their drinking, put down their glasses and came on more slowly.

Burnet spoke quietly to the ring of men around the table: "Step aside, please."

A lane parted, and pushing in close with him, Lew Rand saw the quick, scuttling look on Two-Stripe Doyle's face.

"Doyle," Burnet said, "I'd like to see your money."

"Just a minute here!" Gil St. Clair, standing directly across the table now, put up one hand. His mouth beneath the straight-clipped grey moustache took on its stern military authority. "What is this?" he demanded. "What's the charge against this man?"

Burnet looked at him, and his voice still held its soft tone. "Is he one of your men, St. Clair?"

"He is."

"In that case, perhaps you will be held for information, yourself. The charge is robbing the United States mails at Clear Fork, Texas."

St. Clair's mouth loosened, hung slack an instant, tightened again; but something cold and guarded came into his small, narrowing eyes.

Burnet continued: "We have the serial numbers of that money. Do you want to shield this man?"

With a forced effort St. Clair said, "I harbor no criminals in my outfit." He avoided a sudden lift of Doyle's black eyes toward him.

"Then I'll ask again to see his money."

Two-Stripe Doyle pushed back from the table. "You stay by me, St. Clair!"

Still St. Clair did not look at him.

Doyle gripped the table edge with the knuckles of his hands turning white. He stared up. "You hear? You stay by me!"

ALL games in the room had stopped. A long moment of silence stretched out to the breaking point, and in that time Lew Rand could feel the play between these two men—St. Clair figuring with a quick and crafty mind, crawling out with the treachery that was his nature; Doyle caught and showing a trapped-animal fear.

And then as St. Clair gave no answer, Doyle's high-pitched voice shattered the silence: "You white-livered sneak! You want me to talk?"

St. Clair looked down at him then, cool and sure of his defense. "You've nothing to talk about, Doyle."

"No?" Doyle half rose from his chair. "You think I haven't! You, St. Clair—you paid Hutch Bonner to kill Tom Lee!"

"That's a lie!"

Only that much came snarling from Gil St. Clair. Another voice cut heavily across the words: "Hold on, Hutch!"



"Yes sir, we're catering especially to the farmers!"

Pivoting, Lew saw Hutch Bonner start back from the crowd, saw Clay Carr leap to the door, cutting him off. It was a picture that flashed its course in half a second, but he was always to remember the stolid set of Clay's body, his dogged voice beginning, "Hutch, you — — —"

A gun's roar stopped him. Bonner's hand had moved lightning fast.

Carr dropped and Bonner started forward; and Lew lunged out to block the way in the same instant. But another shape was ahead of him—Quarnight, gun drawn, blazing. Hutch Bonner took three steps out into the street and fell. Lew swung back, expecting trouble with St. Clair and Doyle. He heard Burnet's voice show its hardness for the first time: "I'll kill the first one of you that moves!" The answer to that was sudden dead silence.

Turning once more to the street and looking across, he saw Connie Lee in the doorway of the hotel. He started toward her and she met him, running, flinging herself against him.

She gasped, "Lew! What happened? Was it . . . I saw . . ." She choked and could not finish.

He led her back to the deserted lobby, and stood holding her close until the shock of what she had seen had passed. Then he said, "Don't come out again. I'll be back."

He felt her press against him, harder, her hands clinging. "Lew, it was Clay, wasn't it? Don't go! Don't leave me!"

He said gently: "I'm not going to . . . only for a little while."

But it was three hours before he could return to the hotel. He knew

that some word had been passed back to her, and that the shock had been relieved, if even a little bit, by this passage of time. Clay Carr had died instantly there in the Long Branch. Hutch Bonner had lasted half an hour.

IN the Marshal's office, Two-Stripe Doyle had turned state's evidence, telling all he knew. It was this that Lew Rand brought to Connie Lee.

He found her sitting alone in the lobby, waiting with a calm bravery that he had seen once before. "Do you mind," he asked, "if we talk in your room?"

She hesitated; and he said, "It's all right, Connie. This town has other things to watch."

She took his arm but marched firmly at his side, and then in her room down the long hall he saw with relief that two windows looked away from Dodge City, north across the starlit prairie. For that was their way now . . . north, to Dakota, and beyond.

There was no chair, and when she sat down upon the narrow bed, he crossed to one window and stood looking out. He spoke watching the night's quiet peace that lay across those endless miles: "Doyle and Gil St. Clair are being held in the Marshal's office. Doyle told all he knew about Hutch Bonner. It was little enough. Clay and Hutch were friends in south Texas, and something happened. I can understand that, Connie. There isn't a man among us who hasn't something back in his past, small enough at the time, but a harmful weapon if someone wanted to use it. That's what Hutch Bonner was doing, holding an axe over Clay."

Behind him, she said, "We could see that, Lew."

He nodded. "Yes. Clay was taking orders from Hutch Bonner on the trail. And Hutch was holding us back, because he was playing the other side, too—St. Clair's side. It was Hutch who learned about the shipment of money. I think Clay was too open in his talk. Hutch passed the information to Doyle, and Doyle managed the robbery. St. Clair had no hand in that; it simply was a lucky break for him. But he had made a deal with Hutch Bonner, earlier, hiring him to prevent the Circle Dot from going north, in any way. He paid cold cash for what happened that night before we started."

Standing there silent, Lew let his gaze sweep once more far outward across the prairie. Then without turning, he said, "Connie, come here."

She rose and came to him and he put one arm around her, bringing her up to the open window.

"Tomorrow," he said, "we're going on. The quarantine order won't hold. I have the Marshal's word for that. And beyond this point our way is clear. We're going on together, Connie, you and I." His arm tightened; drew her against his side. "All that has happened is past. There's only the future now . . . ours. Look out there. What do you see?"

Her voice came up to him, small and hushed, "Dakota."

"Yes . . ."

"Montana."

"Mountains," he said. "There are trees, Connie, and streams . . ."

She turned to him then, pressing her face hard against him. "And you," she whispered. "Hold me, Lew . . . hold me now."

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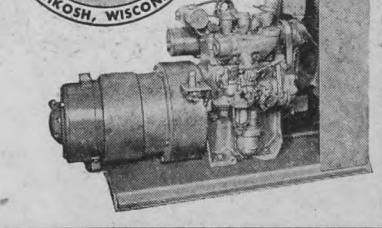
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The Neighbor Girl

Continued from page 9

community moved other women to expressions of grave concern, Bessie would get a tight, hard ache in her chest and blinding tears would fill her eyes. She would take over the most arduous jobs there were to do for the bereaved ones, but she couldn't say a word.

She ached at times to possess the easy manner of some women, the acuity of saying the graceful phrase to fit the occasion. It didn't matter at home, though. Tom understood her reticence and so did the boys, Jim and Bill. But now, at this moment, Bessie felt that she would have cheerfully given a great deal for a silvery tongue and a gracious, winning approach to this girl of Bill's.

BESSIE'S attitude, whatever her apparent lack of responsive warmth, didn't appear to bother Kay, though at times Bessie would turn suddenly to find the girl's clear, ingenuous gaze fixed wistfully on the older woman, and Bessie would feel vaguely uncomfortable and uncertain.

But Kay seemed perfectly happy. Dressed in beautifully cut grey doe-skin slacks and a fur-collared station wagon coat, her lovely face peeping from beneath the furred peak of Tom's leather hunting cap, she rode around the farm and over onto the east quarter with Bill.

She stayed close to Bill, going out to the barn with Tom and Bill when they went to milk the cows, laughing because she looked so ludicrous in a pair of Bill's overalls, the ends of the pant legs turned up to her knees, her small feet in Tom's huge felt boots.

Tom laughed at her, crinkling his dark eyes in delight. They got on famously. "She's a great kid," he said to Bessie on the third evening of Kay's holiday, when Bill and Kay had left for a dance at Carford and Bessie sat in the big old armchair by the living room heater, darning a huge hole in the heel of Tom's grey wool socks. "She's sure too good to be true. I never saw a city girl so keen on the farm before."

"My goodness! Why shouldn't she be?" said Bessie tartly. "She's having a good time, chasing around. She doesn't rightly know what it's like living on a farm. The work, I mean."

"Oh, Bessie! The times you've said you'd sooner die than live anywhere else than on a farm." Tom flipped the pages of his farm paper and stretched out luxuriously on the cretonne-covered lounge.

"I know it." Bessie darned vigorously. "But it's no snap cooking and doing like I've had to do these last few days, fixing up meals for those two."

Tom laid down his paper and eyed her curiously. "Why do you go to such trouble, then?" he said. "You've been outdoing even your best efforts since they came. I never saw such meals as you've been putting out. No wonder you're tired. And why don't you let her help you . . . I heard Kay ask you if you'd like her to make a pie for dinner . . ."

"Pie!" Bessie snipped off a length of grey wool and threaded her needle, sitting stiff and straight in the chair. "I'd like to see the pie a bank clerk could make."

"Why, Bessie!" Tom's dark eyes

were troubled and he sat up and looked at her, his expression worried and anxious. "You like her, don't you? You like Kay? You think she's all right?"

"Of course I like her," Bessie spoke sharply and her blue eyes looked angrily at him. Then she said slowly, as if she needed to convince herself, "Of course! . . . She's Bill's girl. But Tom, I don't think she's cut out for life on a farm. I don't think she'll make Bill happy."

"For heaven's sake, why not?" exploded Tom. "Gosh, I can't understand women. Here is Kay, all wrapped up in Bill, having a whale of a time on the farm, and you get all hot and bothered because you don't think she'll fit into the life here. What do you want? Would you like him to marry a shapeless old thing in a Mother Hubbard, who could milk sixteen cows a day and bake a batch of bread every night?"

"Go on with you," said Bessie, and her blue eyes crinkled and the laughter wrinkles sprayed out on her brown cheeks. "You crazy old thing."

But she spent a sleepless night, tossing from side to side of the not very comfortable bed in Jim's old room, wondering and cogitating and worrying.

The next morning Bessie's unpleasant and unhappy premonitions received added confirmation. She was coming back from the chicken house with her basket of eggs, which she had neglected to gather the day before, when she saw Kay standing against the south end of the front porch, looking out over the fields where already patches of dark earth were appearing through the thin crust of snow.

The sky in the east was a glory of turquoise and yellow, lavender and palest rose, layers of splendid color through which the sun was rising in shining radiance. Kay was gazing to where a line of dark woods marked the horizon, and her whole attitude seemed expressive of some deep feeling.

"The poor kid," thought Bessie. "She's just about fed up, and wishing with all her heart that she were back in the city."

Then Kay saw Bessie, and she dabbed at her lovely eyes with a scrap of handkerchief and said, "Oh . . . I d-d-didn't see you. Isn't it a lovely morning."

"It's a lovely sunrise," said Bessie, "but I didn't expect to see you up so early, and I had better be getting my work done instead of gawking at the sky, hadn't I?"

Kay looked wistfully at her. "Have you much to do?" she said. "I . . . I . . . could help you . . . I always helped my aunt with the cooking . . ."

"Your aunt?" Bessie held open the door of the kitchen and Kay slipped through, an aura of delicate perfume slipping with her.

"Yes," she said. "I lived with my aunt and uncle. My father and mother died when I was a little girl. My aunt took care of me until I was old enough to go to business school in the city."

"Didn't your aunt live in the city?" said Bessie. Suddenly she began to feel a warm surge of affection toward Kay. Suddenly she seemed to see a little, frightened girl going to live with her aunt and uncle.

"Oh, no," said Kay. "My aunt and uncle live . . ." She broke off suddenly, and her lovely face grew

luminous as Bill came clattering into the kitchen from his bedroom.

"Hey!" he said, and he picked her up as if she still were a little girl, swung her into his arms, and planted a kiss on her rosy lips. "Hey! What d'you mean by sneaking off this morning. I thought you had run away on me."

"Bill! Let me down." She struggled with him, her smooth, blonde hair becoming dishevelled, her pale cheeks brightly pink. "What will your mother think of us?"

"And Pa? What will he think?" said Tom from the back kitchen.

"Well, it's a funny time to announce it but I guess breakfast time, in a farm kitchen, is as good as any," said Bill. "Folks, allow me to present the future Mrs. Bill Marsden."

HE put Kay gently down and placed his arm around her, and his beloved face held such radiant happiness that Bessie felt the quick tears spring to her eyes, and a sudden, warm glow spread all around her own heart too.

"Good for you, boy," said Tom, his deep voice husky, his dark eyes misty; his big brown hand clasped his son's, and his arm went around Bill's broad shoulders in a quick, male caress. Then he lifted Kay from Bill, and gave her a shy, boyish kiss, and said, "Kay, you can't tell how pleased I am."

Kay kissed him back with lips that Bessie saw were trembling, and her lovely grey eyes held a hint of tears too. Then she turned to Bessie.

Bessie's wide blue eyes met the beautiful grey ones, and a look of steady appraisal passed between the two women, the young girl with all her life before her, and the woman who had lived with a man for twenty-seven years, borne him two sons, seen one leave home to marry, and was now experiencing the bitter-sweet knowledge that her youngest boy had chosen his love and been accepted.

Kay's candid gaze met hers, and Bessie took a step toward her; then the slim, blonde girl was in Bessie's arms, Bessie's quivering lips met Kay's tremulous mouth.

"God bless you, child," Bessie whispered brokenly, and Bill, putting his arms around the two of them said, "Hey! What is this? A wake?"

The next day Bessie had the farm to herself. Tom, Bill and Kay had driven off to Carford to do some shopping.

"We'll be married right after spring work," said Bill at breakfast. "Then we can take a honeymoon legitimately. Then, back to the farm, and the eternal grind for you, Katherine, my girl."

"You'll have to get busy on a house on the other place, son." Tom's dark eyes were sparkling, his thin, brown face quite blissful. "Kay, you'll have to drive over onto the east quarter and pick out the site."

"Oh, we have, Pop," said Kay happily. "It's in a grove of trees that'll be lovely in the summer."

BESSIE sat in silence, poking a piece of toast and marmalade around on the pink and white breakfast plate, her cup of coffee untouched.

"I can't get used to it," she said aloud, after the two men with the laughing, lovely Kay had driven off in the old car. "I can't get used to

the idea of that girl making a good farm wife for Bill. She's loving, and she's a good girl, but she'll never stand up to the life . . . I'm sure she won't. Oh, dear! Why, why couldn't Bill have picked a neighbor girl?"

"But she likes the farm. She loves it," argued a small voice inside Bessie.

"Hm!" answered Bessie to the voice, "because she's had a grand time on the farm, going here, going there, chasing around. What does she know about work . . . the monotony . . ."

And then, suddenly, as Bessie stared out the kitchen window the idea took shape in her mind.

Suppose Kay had to experience the true meaning of life on a farm, Bessie thought. Not the casual week or two of hearty meals, not the driving here and there, not the freedom from a city job and worry and coercion, not the lack of stress nor the quiet comfort of the farm. Suppose she were catapulted suddenly into the hard work of the farm, the cooking, the dish washing, the washing of the cream separator, the feeding of the chickens, the hunting of eggs, the multitudinous duties of a farm woman. Would she still "love the farm," or would her happiness and Bill's collapse under the gruelling, everyday monotony and labor?

"I don't believe she'd last," said Bessie thoughtfully. "And if anything happened to me while she's here, she'd have to do it. She couldn't just

up and leave . . . If she did that it would be the end of her and Bill . . . If I suddenly got sick . . . she'd have to do it . . . If I got sick . . . And I bet she'd hate it all . . ."

"Then why don't you try it?" said a small, sneering voice. "You could easily get sick, couldn't you?" And, indeed, Bessie did feel almost sick. Hot and cold, by turns, and shivering, she contemplated acting Destiny, and solving the problem of Bill and Kay's future happiness.

Then, abruptly, she gave her sturdy shoulders, in the blue house dress, a resolute shake. "Bessie Marsden, what's the matter with you?" she said sharply. "Have you gone crazy or something? You ought to be ashamed! The idea of thinking such things! Here's Bill, engaged to the sweetest girl in the world, and you with such wicked thoughts. Get sick! You deserve to get sick."

SHE turned away from the window and began to clear the dishes with spurious energy. Then she stopped and stood by the kitchen table and, dashing her calloused brown hand across her eyes, whose brightness was dimmed by tears, whispered brokenly, "Only, please, please, let her make him happy. Let her make my boy happy!"

She stacked the dishes in the sink. "I'll clear out the top shelf of the cupboard," she said briskly, "and wash off the best dishes. They might

bring some of the folks back for supper."

She shoved one of the ladder-back chairs beside the cupboard and scrambled up. Too high, the shelf was, still out of her reach. Bessie dashed into the living room and came back with a little tapestry-covered foot stool which Tom had made for her. She placed the stool on the chair seat and scrambled up once more.

She reached up to the top shelf of the cupboard, leaned forward and tilted precariously. The little stool slipped sideways over the edge of the chair, Bessie's arms flew out, grabbed at nothing, and with a crash the stool fell to the floor, Bessie falling with it, her right foot turning awkwardly under her.

A flame of pain seared her leg. She tried vainly to stand but the acute agony made the white walls of her kitchen sway and swing and the colored calendar, of an unbelievably blue waterfall, dance up and down.

She inched herself along the floor and into the living room, and then with a violent effort which brought the sweat out on her forehead in great beads and made her bite her lower lip until it bled, she managed to drag herself up onto the lounge. And it was there, about half-past four in the afternoon, that Tom and Bill and Kay found her.

"Don't you dare try to get up for a week," said Tom to a white-faced

Bessie after Dr. Strong had left. "He says you mustn't put your foot to the ground, and you're just going to do what he says."

He sat on the side of the bed in Jim's old room, and his gentle hand stroked the greying blonde hair back from Bessie's drawn face.

"It . . . it was my own fault! You told me I'd fall some day, and I did . . . and it was a judgment on me, too," said Bessie, two big tears squeezing out from under her eyelids. "Oh, Tom, you don't know what I was thinking of doing . . ."

"I don't want to know," said Tom. "You're always thinking of doing some crazy thing, but what you do is okay with me, Bessie. You lie still, and quit thinking, and rest."

"I . . . I . . . I've s-s-spoilt the kids' holiday," wailed Bessie. "I've spoilt Kay's visit. Bill will never forgive me."

A SOFT knock sounded on the door. "May we come in?" asked Kay, and she and Bill came into the bedroom, which opened out of the entry close by the kitchen.

"You know what I think," said Kay. "I think it would be better if Pop and Bill carried you back into your own bed, in your own room. You'd be happier there and quieter, wouldn't you?"

"Oh, no!" said Bessie. "Let me stay here. It's closer to the kitchen. I don't want to be moved."

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PRODUCTS OF GENERAL STEEL WARES LIMITED

"Okay, Mom," agreed Bill. "But don't worry; that's the main thing."

Before she was fully awake next morning, Bessie was conscious of the faint scent of roses. "Oh dear, did I disturb you?" asked Kay, bending over her. "Could you eat a soft-boiled egg?" she went on gently. "And would you like coffee or tea? The men had coffee, but I can make you some tea."

Bessie's sleep-dimmed eyes struggled to open. This was Kay—in a plain blue linen dress and a large white apron, her hair shining as always, her cheeks faintly pink.

There was the most delectable smell drifting in from the kitchen, a tantalizing smell of bacon frying and fragrant coffee. She could hear men's voices talking cheerfully, Bill's voice and Tom's.

"Don't worry," said Kay. She leaned over Bessie and her grey eyes were loving and luminous. "Don't worry the least little bit. I can take care of them, and you too... Just relax... Mom."

She tiptoed from the room. Bessie heard Tom say, "That was a grand breakfast, Kay. Where on earth did you learn to cook like that?"

Kay's laugh reminded Bessie of the tinkle of a little chain of crystal drops that she had played with as a child, a long time ago, and suddenly she slept again.

SHE awoke and smelt apple pie baking. Smells like cinnamon too, she thought sleepily, and then she became wide awake as she heard the kitchen door burst open. Tom's voice, raised in exasperation, was saying, "Wouldn't you know it? I got her pen all fixed up, but no! Back that darned old sow went into the old shed to have her pigs."

"It's cold as all get out," he mourned miserably. "We're going to lose some for sure. There's two little fellows that are going to die by the looks of them. She can't handle thirteen!"

Bill's voice said, "Sure tough, Dad. Guess you'll have to knock 'em on the head. Too bad!"

Bessie squirmed under the covers. The little baby pigs! The little pigs that she had taken care of so many times. She groaned, "It's my own fault. Of all the helpless idiots, Bessie Marsden, it's you."

And then she heard Kay's gentle tones, her soft, clear voice saying, "Bring them in here. Of course I can take care of them... I know how. Bill, don't be silly! Didn't I tell you I lived on a farm with my aunt and uncle? Bring the little baby pigs in here. I'll look after them."

"Hallelujah!" said Tom, and he said it reverently. The kitchen door slammed; there was silence for a while, and then the door opened again. There was a bustling and a commotion, and laughter from Kay, and the deep tones of Bill's voice.

Bessie moved her head on the pillows. Her heart was beating heavily, her blue eyes were wide and incredulous. The door into Jim's old room was pushed open, and there stood Kay, blonde and shining, in the blue linen dress, holding in her arms something small and pink and squeaking, which, as Bessie gazed enraptured, fastened its small mouth on the milk-soaked rag which Bill's girl held in her soft white hand.

"Now, look here! What do you think about this?" said Kay, her grey eyes alight with pity for the puny little creature.

Bessie stared with bemused blue eyes at the daughter that she knew, now, Kay would surely be. She had never been so happy. No, not even when she married Tom.

"Oh, Kay," she whispered softly, "Kay, honey. You're nothing but our very own neighbor girl," and her misty eyes looked into the lovely grey ones of Bill's girl, as she sighed a long, contented sigh.

Peace Tower

Continued from page 4

was lunching at Portage and the Mall?

Canada was founded, not on blood and death, but through the anemic process of the constitutional table. Our National Anthem, which in a sense we still lack, will never hope that the enemy's impure blood will water our ditches, as suggested in France's Marseillaise. Nor will we, as in the third verse of God Save The King ask the Almighty to confound their politics and frustrate their knavish tricks. Indeed, so lukewarm are we to any national anthem that we have not finally agreed on one. Nor have we officially and absolutely picked a flag. This, then, this anthemless, flagless country of hopelessly diverse views is the country Mr. King governed for so long.

TO sum up so grand a career as that of Mr. King, savors almost of impertinence when put as briefly as I hope to put it. Yet in all humility I suggest there are six outstanding things which mark the Mackenzie King era. They are:

1. He ran a war successfully, offering maximum effort, minimum domestic trouble over conscription, and keeping us together till the end. While going all out, and answering every demand for money or food, we

all ended up more prosperous than when the war began.

2. Thanks to his personal relations with President Franklin Roosevelt, we reached the Golden Age of Canadian-American relations. Reciprocity in peacetime, and the Hyde Park agreement in time of war were merely two milestones of many.

3. We established our own nationality, became a world power.

4. He ushered in social security, taking care of old age, providing pensions, assisting parenthood with mothers' allowances, and through health and welfare providing at least a minimum of medical aid. He started the welfare state on its way, without scuttling private enterprise.

5. He brought us closer together nationally than we ever were before. He made the word Confederation mean confederation.

6. He found us a colony and left us a nation.

The butterflies kept on dancing, the hummingbirds were still darting and the hollyhocks hadn't stopped swaying as I sat under the tree at Kingsmere while all this went through my mind.

I heard a French-Canadian farmer yell "va donc" to his horse, the beer-filled picnickers were singing "Music, Music, Music," and a Canada jay tuned up in a neighboring birch. Life went on while death was closing in quietly in that bedroom upstairs.

The Countrywoman

What Is It?

Vivid bit of color,
Jewelled dynamo,
Ruby throated atom,
Speed, with liquid flow,
Pulsing iridescence,
Motion undeterred,
Ecstasy of action:
Just a hummingbird!

—EFFIE BUTLER.

This Is To Live

To lie on waves and feel their buoyancy,
To gaze into the illimitable blue,
To watch the ecstasy of wind-stirred leaves,
To lose the heart to the song of oriole,
This is to know the joy that flows through life.
This is to live—albeit momentarily.

—CLARA HILL MAUNSELL.

The Unbeliever

He tramples fields where dreaming cattle trod
And shakes his fist at sky and sun-sweet sod.
"Oh God!" he cries, "Oh God, is there no God?"
And all around him hovers God's reply—
The birds and bees and soft-winged butterfly.

—LORETTA PARKER.

Summer At Home

IT would be interesting to take a poll among farm families on the question: What is your idea of a good holiday? Let's ask further: What season of the year do you prefer for holidaying? and: Do you make a practice in your family of planning so that each member gets a definite break from the usual routine of duties? If this cannot be arranged for all members each year, then do you plan something special when well-earned holidays have accumulated in order to assure a change of scene and thought?

We can imagine that there would be a range of choice in the season selected and a wide variety in the types of holiday selected as "ideal." Does the family go as a group or do the various individuals choose their own way of finding a bit of change and relaxation? Much of course will depend upon the ages of the children. But it is probable that the farm family moves as a group more than do urban families. There is a great need for individuals to get away occasionally from the family circle in order to develop individuality and interests, which serve in the end to enrich family life.

Dad may select spending a few days or a week at a fair or a convention in the city, going on an agricultural tour or on a sight-seeing trip. Mother may save up her holidays and make a trip to visit distant friends or relatives; go on a shopping tour, attend a convention or go with the family to a cottage beside a lake for a fortnight. Older sons and daughters may find pleasure and profit in attending some "course" offered at the provincial university or an agricultural college. They thus widen their experience, meet many other young people of the same age and kindred interests and learn to stand on their own.

For the menfolk it may be a week or ten days of hunting or fishing, finding good fun in tramping through fields and marshes, cooking their own meals and generally roughing it. For the

Let's make the most of summer and consider holiday plans for the members of the farm family, each according to his or her taste

by AMY J. ROE

younger folks, who are just discovering themselves, it may mean a fortnight at some conducted camp, organized by a church or some social organization such as Scouts or Girl Guides. Under trained leaders they will play and work and thus develop latent talents, learn new skills and make new friends. To the more serious-minded and ambitious young person, the opportunity to attend a winter or summer course at the university may represent many holidays combined into one, and be close to the heart's desire.

The motor car has brought many changes in our social pattern. It has extended our radius of experience. It is a definite part of the farm economy and serves many useful purposes. But one might ask if its use as an instrument of pleasure is duly planned. It can be useful on pleasant little family outings such as picnics or jaunts to nearby parks, beaches and other summer holiday spots. There should be a fair sharing of its use by the various members of the family as they reach the age of responsibility for its management and master skill in driving.

Summer is not the usual time of holiday for farm folk. It is the busiest season of the year for almost every member of the household. It is too the time when friends in cities and towns like best to visit in the country. So there are likely to be visitors and extra help about. The place fairly teems with activity. After the rush of spring seeding, come cultivating, gardening, poultry, berry picking, canning, haying, and harvest. Our summers are all too short. It is good for us to be outdoors as much as possible, to soak up sunshine after being shut in for so many months. We should plan to get as much enjoyment out of the summertime as possible. Pleasant little outings can be sandwiched in between the busy spells. A little thought will provide periods of relaxation and relief from the trying heat.

Have you some spot on a porch, in the yard or possibly at a nearby stream, where you can relax on a summer day? A yard with attractive planting of shrubbery and trees offers privacy to family and friends. The trees shield them from the view of passers-by on the highway and affords welcome shade from the hot sun. If you have not yet started a farmyard planting, do so by all means this year. Have stretches of green lawn and bordering flower beds. High dividends in contentment and delight come from having bright patches of flower gardens. Then, too, you will have the additional

pleasure of cut bloom to brighten up the rooms of your house. A gay vase of flowers adds a note of cheer and says "welcome" to guests in a flattering way.

A background of lilac, honeysuckle and spirea will serve to set off to advantage the border and corner planting of perennial and annual flowers you select. Tall delphinium and hollyhocks, with a lower arrangement of poppies, daisies, galardia, zinnias and forget-me-nots will prove a charming color arrangement. You will spend many precious leisure hours enjoying their beauty. You will be more content to stay at home to enjoy them to the full. You will be proud to show friends about the place and highly pleased with their admiring comments. Home, as a beauty spot reflected in memory, is a precious asset for the children. Yet how sadly neglected are many farm houseyards!

If possible plan some place for out-door living, be it a porch, a screened "breezeway," where folks may sit unmolested by mosquitoes and flies. And do plan for some eating out-of-doors. It is a welcome change for the entire family and need not make extra work. For one thing the meal can be much simpler and of a pass-around style. The children and visitors will welcome it and may help with the serving, which will give them a sense of being on a picnic. For young mothers with small children, an outdoor sandpile is a great aid. It helps to keep the children busy and their interest in the playthings afforded prevents them from wandering far afield. From shaded porch or nearby window, the young mother and her visitors may keep their eyes on the small tots.

Possibly you have an attractive lawn and bordering shrubbery but are not making full use of your summer "outdoor living room" because of lack of proper furnishing. Wooden table and benches may be simply constructed and serve many purposes. Place them in shaded spots where they will be most used. A hammock, two or three steamer chairs, will add many moments of comfort on a lazy warm day or evening. A few moments of relaxation for busy men or tired women folk will repay many times over the money spent for such items. When mother is alone or has visitors, she may carry a tray out to the lawn and enjoy refreshments in a comfortable and attractive setting. Such a feature adds a graciousness to summer living in the country.

If yours is a household of young folk, then possibly you are looking for something to keep them occupied and happy at home on a summer evening. Is there a spot in the corner of the yard or down by a stream where you can erect an open fireplace? They can have hamburger parties or corn roasts and sing-songs around the open fire to their hearts' content. Yes, it will pay dividends to give some thought to pleasant summer living on the farm even though actual holidays are excluded.

Your Ideas

We would like to know our readers' opinions of what makes "An Ideal Holiday for Farm People." Write us a letter telling how you plan or make a practice of letting the various members of your family get away from the usual routine. Tell what season of the year you prefer for holidays. It may be an account of a "group" or an "individual" holiday. Do not go into detail about a long trip. Keep your letter as brief as possible: the shorter the better. These bright and sunny days are excellent for getting good photographs. If you have some favorite spot on the farm where you may enjoy moments of relaxation at home such as the porch, the lawn, by a stream or a picnic nook in a wooded area, take some photographs. Address letters to The Countrywoman.



Down by the pond. Nature takes on an added grace in summer.

Dark Days For Pests

by MARGARET M. SPEECHLY

New weapons, chemicals and strategy aid the citizen of this modern day in the fight against man's age-old tormentors

SINCE the beginning of time, man and beast have been tormented by biting insects. Freedom from these pests at last can be secured in handy packages from the local hardware or drugstore, in the form of powerful insecticides.

Rightly used these products mean comfort and relief for animals, better gains in weight, greater milk production, and more important still, less sickness and disease, not only for animals but for humans as well. The new insecticides even help to reduce the amount of downright toil to be done in the home.

For controlling most of the pests on the farmstead, there is nothing on the market as yet that can compare with DDT, according to the experts of the Department of Agriculture at Ottawa.

DDT heads the list because it is certain death to a large variety of biting insects. Further, it has the power to keep on killing day and night, for weeks and even months. It is poisonous of course, but it is much less dangerous to man and animals than many other chemicals, provided directions are followed to the letter.

Here is how DDT does its work. It is so powerful that there is no necessity for insects to swallow it or be hit by it. To be doomed, they need only stand on or walk over the poison. They do not drop dead immediately, but the chemical starts at once to penetrate their feet, legs and body walls and to paralyze their nervous system. After a while they begin to stagger and to whirl around and finally they die.

To get the best results in treating the kitchen or any other room in which food odors attract flies, you must work systematically. Purchase a hand sprayer and a good brand of oil spray containing five per cent DDT. Read the label on the package before you buy to make sure of the ingredients.

Never use an oil spray near a flame or a heated surface. Do not even allow a lighted cigarette in the room or a hot gas iron. Remove or cover all food. Take the baby's play-pen and toys to another room, also house plants. Keep out pets and remove the gold fish and bird cage. Close the

windows and doors before you start.

Apply the spray evenly to the walls, ceiling and woodwork until every inch has been treated. Hold the gun 12 inches from the surface and apply enough insecticide to form a coating that does not drip.

Pay special attention to areas where flies love to gather, such as the wall or ceiling, behind the range, over windows and arches, on electric cords and hanging fixtures. When the oil evaporates, a fine, almost invisible coating of DDT crystals will be left, ready 24 hours a day to kill insects crawling or resting on the surface. As a rule, it will only be necessary to do this twice during the fly season.

Do not use the gun directly on the screens because most of the chemical will be lost in the outer air. Instead, pour some insecticide into a clean can and with a brush paint it on the wire netting, both inside and out.

This has the effect of poisoning many flies and mosquitoes before they can enter the house. Remember that the power of DDT cannot be judged by the number of dead flies in the house. It is the absence of live insects that counts.

Often there are flies and mosquitoes lurking in the vines around the doors. Do not use an oil spray there or around house plants since oil will burn the leaves. Instead, get DDT in the form of a 50 per cent wettable powder, which can be mixed with water. Do not use this type of spray on furniture, hangings or wallpaper as it leaves a white deposit.

You may want on occasion to clear an untreated room of flies and mosquitoes. For this, use a spray containing pyrethrum which gives a quick "knock-down." Aerosol bombs are excellent for getting a rapid kill but the effect is not lasting.

Stop a minute and consider the benefits of the new insecticides, quite apart from the health angle. Before DDT came into the picture the chief weapons for dealing with flies consisted of sprays, swatters and sticky papers hanging from the ceiling.

Such things were better than nothing, but in each case they created work. Sprays applied daily left an oily film on walls, windows and curtains

which collected dust and had to be washed off periodically. Swatters and sticky papers were messy in any case.

Worst of all was the filth left by flies that sneaked in every time a door was opened, no matter how good the screening. Thus the new insecticides cut down much of the heavy cleaning usually done at the end of the fly season.

DDT in powder form is a powerful aid in destroying pests that are hard to reach. The fact that cockroaches, carpet beetles and bedbugs hide in cracks and crevices makes it difficult to banish them entirely once they take possession of a building.

IT is now possible when armed with DDT and a dust-gun to force the powerful chemical into the hide-outs of the pests. Give every crack, crevice and baseboard the treatment, and as an extra precaution use an oil spray containing five per cent DDT on the walls and floors.

Go over the seams and tufts of mattresses with DDT powder or spray, and don't forget the cracks in the bedstead. When the crawlers emerge from their haunts during the dark hours they cannot avoid coming in contact with DDT, no matter where they travel. Best of all DDT stays on the job for weeks and months.

Millions of dollars are lost yearly in Canada through the ravages of clothes moths. DDT could save this waste if used systematically on woollen clothes and furs. It is possible to buy good sprays that do not stain clothing and to use them on closets and other storage places as well as on garments and furs.

Of course the clothes must be entirely free from moth eggs when put away and they must be sealed in mothproof containers so that no insect can enter. Remember that it is the grubs that eat wool and not the flying moths.

While you are on the warpath, take your gun and the can of DDT spray to the outdoor toilet and give the inside of the building a thorough treatment. If flies like to congregate on the outside of the walls

apply an even coating there. The effect of DDT lasts longer on unfinished surfaces than on paint or varnish.

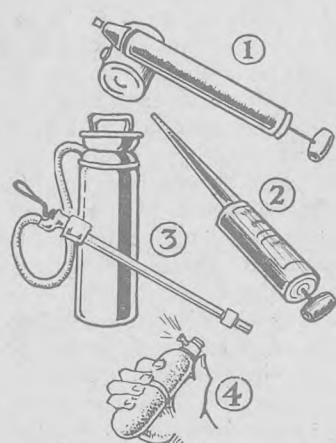
In barns, poultry houses and pig pens, modern insecticides make life bearable for livestock where it was formerly sheer misery during the fly season. Authorities state that DDT is no longer recommended for spraying dairy cattle because it shows up in the milk. Instead, they advise the use of methoxychlor, which is efficient and safe to use for repelling flies.

For the inside of dairy barns, the experts advocate the use of lindane in place of DDT. They caution you to cover food, water, troughs and drinking cups before starting to spray.

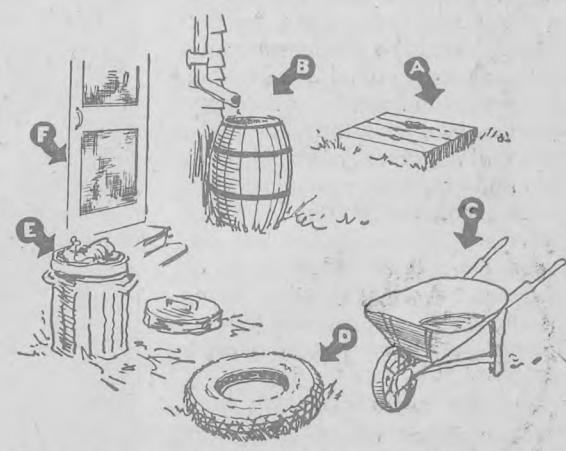
DDT is still recommended for keeping other cattle free of flies, with the exception of those animals soon to be slaughtered. Buildings other than dairy barns can also be treated with DDT sprays. Be careful to remove the animals first and to protect fodder and water from the action of the chemical.

Never use an oil spray on animals. Instead, apply DDT in the form of a 50 per cent wettable powder, mixed with water according to directions on the package. Pyrethrum is safe to use on animals, but it lacks the lasting effect of the newer chemicals.

In all matters concerning the use of insecticides consult your agricultur-



Types of sprayers. (1) Hand sprayer. (2) Duster. (3) Compressed-air sprayer. (4) Space spray (aerosol).



Watch these danger spots. (a) Open cesspool. (b) Uncovered rain barrel. (c) Wheelbarrow holding water. (d) Old tires. (e) Uncovered garbage can. (f) Screen door that doesn't fit.

BABY'S UPSET STOMACH QUICKLY CORRECTED

BABY'S little "Tummy" is often easily upset. It is easily righted again, too, if you know just how to do it. Let Mrs. M. S. Alway, of London, Ont., tell you: "Baby's Own Tablets are a great help at the first sign of upset stomach, during teething time or when a cold is coming on. They work quickly yet gently to carry away poisons and promote restful comfort."

And Mrs. W. R. Sharp says: "I nursed my baby shortly after being alarmed over a motor accident and her stomach became quite upset. I gave her Baby's Own Tablets and she soon stopped crying — and quieted down."

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tural representative, provincial extension specialists or the Department of Agriculture at Ottawa. Get the latest bulletins on the subject so that you can keep up-to-date on the newest developments in insect control. Bulletin No. 65, Livestock Insect Control with DDT, is helpful.

Things move so rapidly in the scientific world that today's facts may be discounted tomorrow. Fresh formulas for pest control are constantly being developed because it has been found that after a few years, flies build up immunity against approved insecticides.

MOST flies are destroyed easily enough each season, but a few rugged types remain to breed still tougher strains which are not affected by powerful solutions. In Canada we have not been using DDT for very long, but experts believe it advisable to go on producing new formulas that will cope with immunity in common pests.

They warn people not to depend entirely on insecticides for freedom from pests. There is still no substitute for fly-proof screening for houses and milk rooms. They urge the necessity of clearing up garbage dumps and trash, spraying garbage containers and preventing manure piles from accumulating.

It is possible to spray manure piles with DDT but the effect does not last long owing to weathering. DDT does not kill the eggs of insects laid in manure, but it does destroy the flies that emerge or visit such places. Destroy these flies by treating with DDT the buildings where they congregate.

The more complete your treatment of the entire farmstead, the harder it will be for the fly population to build up. This has been the experience of people in three municipalities in Manitoba during the last two summers.

Their agricultural representative, in co-operation with provincial experts, arranged for large-scale treatment with DDT of livestock, barns and chicken houses in these areas. The villages were also included in the program.

A large power sprayer was used and the people were so delighted with results and the reasonable cost of the campaign, that they hope for its continuation year after year.

Not only were there fewer flies, but there was a pleasant reduction in the numbers of mosquitoes. Think how enjoyable summer would be without these aggravating pests.

Most people regard mosquitoes as an annoyance but they are more than that. They are a definite menace to health. Just this summer, Drs. J. D. Adamson, M. Bowman and J. A. MacDonell of Winnipeg, have published evidence proving that mosquitoes are responsible for the spread of the disease commonly called "staggers." The correct name for this is Western Equine Encephalitis.

The same disease afflicts humans, causing terrible suffering for weeks and even months. It is wrongly called "sleeping sickness." The doctors found that the virus of equine encephalitis is harbored by birds and transmitted to horse or man by mosquitoes. They proved beyond doubt

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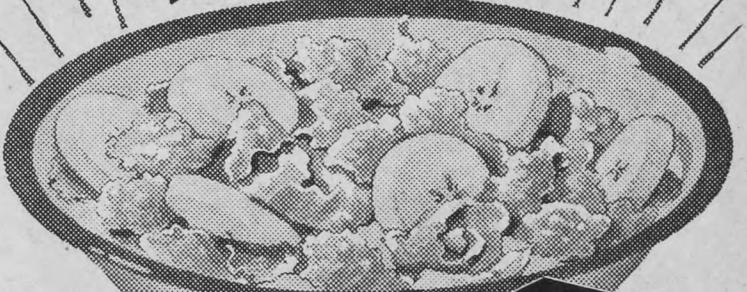
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that mosquitoes are a menace to the health of the community.

Add equine encephalitis to the long list of diseases carried by insects and you have enough evidence to make a community-sponsored spraying campaign worth while. Look around your area to see if there is a power sprayer that could be used.

Whenever you handle insecticides observe these rules:

Store insecticides in a frost-free place that children and pets cannot reach, where they cannot be mistaken for flour or baking powder.

Do not use kitchen utensils for measuring or mixing.

Mix according to directions. Get government instructions and bulletins.

Protect your skin against unnecessary exposure to chemicals. Use gloves and wear clothing that protects your body. Change it if it gets wet with spray solution.

Wash parts of body that have come in contact with insecticides.

Avoid breathing dust or spray mist.

Protect your eyes from dust or spray.

Do not mix or apply oil sprays where there is any fire hazard.

Dispose of unused spray solutions immediately and with care.

Canning in Tin

Small can-sealing units save time and labor and assure a quality finished product

by LILLIAN VIGRASS

DURING the past one hundred years tin cans have almost entirely supplanted glass jars for commercial canning. The cumbersome and expensive equipment, however, kept the average homemaker from following the trend. She preferred to continue using the less convenient glass jars to operating the larger machine and then finding a place to store it between canning seasons. Within the last few years, however, small can-sealing units have appeared on the market which make it possible for the home canner to use tin cans, too, for preserving.

The can-sealer will save the homemaker hours of work in a canning season. There is no preheating of containers. The sealing operation is done all in one before processing begins. The pressure can be released quickly if the pressure canner is used and the cans can be plunged into cold water rather than having to wait for them to cool gradually. Danger of breakage is done away with, and once the can-sealer has been checked for the season there is no waste due to spoilage. The food tastes as good as, if not better, than that canned in glass jars. Where slow cooling may have meant overcooking, quick cooling will give a quality product with a clear liquid, a bright color and firm texture.

If one plans to change from glass jars to tin cans, it will be easier if the changeover is gradual. Plan to buy cans for preserving vegetables and meat at first and use jars for fruits, tomatoes and pickles. Later on as one becomes accustomed to the can-sealer, the housewife will probably prefer canning even the fruit and tomatoes in cans.

The function of the sealing machine is to fold and lock the edges of the tin cans into a tight seam over the edge of the can itself. This seam must be properly made if the seal is to be tight.

The newer type can-sealer is small, but sturdy. The machine is about 18 inches high, and is made to be attached to a firm table or shelf edge, much as a food chopper would be. Detailed directions for its use are included with the can-sealer when it is delivered to you.

If at first glance the machine looks complicated, think about other pieces of household equipment, the vacuum

cleaner, the pressure cooker, the gasoline iron, that looked just as complicated when new, but which you now use automatically. Read the instruction booklet carefully, then follow it step by step.

THE sealing machine should be checked for adjustment before each season's operation, if one is to be sure that the cans are being sealed properly. To check, place a little cold water in an empty can and seal it. Immerse the can in very hot water for several minutes, keeping the newly sealed end uppermost. If no bubbles are seen coming from the can, the seal is perfect and the sealing machine is operating properly. If there is any doubt about the seal, the correct adjustment will be made by the manufacturer or the Dominion Experimental Station at Morden, Manitoba, with no charge.

To make canning in tins economical, each tin should be used three times. For reuse the can must also be opened by the can-sealer. The machine operates as quickly and efficiently as a can opener; the difficulty is to have ready access to the can-sealer at all times. If there is room in the kitchen, the sealer could be permanently attached to a shelf in the kitchen to be used for the sealing and opening of the tins.

Each time the can is used, the opened end is reflanged by the machine. A new cover is used and should be marked in some way so that it can be recognized. Scratching with a nail is one way, or marking with a wet indelible pencil. When opened the second time, the other end of the can is opened. This is reflanged as before, sealed again, and the new cover marked. Reflanging directions are included in the manufacturer's booklet.

If the tins are to be reused they must be stored in a dry place where an even temperature is maintained. Avoid places liable to freezing temperatures or places that are hot, then cold. Temperature changes cause vapor to condense on the cans and they may rust. If the can has been used, wash it with soap and water, and rinse in hot water. Dry thoroughly with a towel or put it in the oven to dry. If you have kept the carton in which the cans were delivered, it will make an ideal con-

tainer for storing empty cans. If the climate is damp, placing crumpled newspaper in the cans and storing open end up will act as a precaution against rust. Cardboard or corrugated boards between layers also help keep them dry. They may also be put in a box of unslaked lime on the floor of the storage room or placed in a gunny sack and hung in the attic.

THE types of tin cans used for home canning are the plain tins and two kinds of enamelled tins. Plain tin cans which are tinned on the inside just as they are on the outside are used generally. They are suitable for meats, fish, poultry and most fruits and vegetables.

When red-colored fruits and vegetables are heated in a plain tin can there is a chemical reaction between the red coloring material and the tin, which causes the color to fade. While this color change does not affect the food value or wholesomeness of the food, it does make it less attractive. To prevent this color loss, some cans are coated inside with a brightly finished, deep gold enamel. These enamel cans, called "R" enamel cans, are recommended for such foods as berries, cherries, plums, tomatoes, beets, squash and pumpkins.

Another type of enamel can, called "C" enamel, is used primarily for canning corn. The light, dull gold enamel lining of "C" enamel cans prevents corn from darkening as it does when canned in plain cans. Greens, kidney and lima beans or beets may also be canned successfully in "C" enamel cans but acid fruits and vegetables are not to be done in them at any time.

The can covers are lined either with a compound gasket or with a paper gasket. The compound gasket is a rubber composition applied to the underside of the cover and is not easily damaged by handling. For home canning, however, the paper gasket is recommended. This is a ring of paper on the underside of the cover. Do not remove or handle the gasket. If it becomes broken, the cover must be discarded. *Do not wet* the paper gasket before sealing the cans.

The most suitable can sizes for home canning are the No. 2, the No. 2½ and the No. 3 cans. The No. 2 can has a capacity of 20 ounces or 2½ cups, and is the size commercially used for peas, beans and corn. The

No. 2½ or 28-ounce size can holds 3½ cups and is often used for canning tomatoes. The No. 3 is the quart size. Most can-sealers are made to accommodate all three sizes of cans.

When ready to do canning, dust off the covers with a dry cloth. Wash the tins thoroughly with hot, soapy water, rinse with boiling water and invert on a clean cloth to drain. Leave them inverted, so air cannot reach them until the food is to be placed in the cans. Prepare the fruit or vegetables as one does for canning in jars: washing well, peeling, blanching or precooking as required. Have ready the hot liquid which is to be added to the food. Pack the food into the open cans, then fill the cans with the boiling hot syrup, natural juice or brine to within one-quarter-inch of the top. For peas and corn leave one-half-inch. Remove any bubbles by running the blade of a knife or spatula down and around the inside of the containers.

If foods are precooked and packed piping hot, the cans may be sealed immediately and without further delay. However, if uncooked food is packed into tin cans the air in the food must be removed before the cans are sealed. This is called "exhausting," and unless done the food may discolor or lose its flavor. Place the filled, uncovered cans on a rack in a process bath. The boiling water should come to within two inches of the top of the can. Exhaust fruits and tomatoes for five minutes. For raw meat, cook until the center has lost practically all the color of raw meat. This takes about 30 minutes for chicken, 50 for beef or pork. Seal the cans immediately they have been exhausted.

Processing is done as usual. The process time for canning fruits and tomatoes is the same as that given for glass jars. Vegetables and meats vary slightly from the time for glass jars. When the processing period is over, remove the tin cans from the hot water and immediately plunge them into cold water to cool. This prevents overcooking the contents of the cans. The ends, which have been bulging until now, will collapse. If they do not, examine the cans carefully for defects. Wipe the cans dry and label them neatly with an indelible pencil, a black grease pencil, paper labels stuck on with egg white or adhesive tape. Labels should indicate exact contents and date of pack. Store all canned foods in a dry, cool place.



Modern small equipment for canning in tins is simple to use.

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BUTTERFLY BUNS

(Makes 20 Buns)

Scald

¾ cup milk
¼ cup granulated sugar
½ teaspoons salt
¼ cup shortening

Remove from heat and cool to lukewarm. In the meantime, measure into a large bowl

½ cup lukewarm water
1 teaspoon granulated sugar

and stir until sugar is dissolved.

Sprinkle with contents of

1 envelope Fleischmann's Royal Fast Rising Dry Yeast

Let stand 10 minutes, THEN stir well; stir in cooled milk mixture and

1 well-beaten egg

Stir in

2 cups once-sifted bread flour
and beat until smooth; work in

2½ cups once-sifted bread flour

Turn out on lightly-floured board and knead dough lightly until smooth and elastic. Place in greased bowl, brush top with melted butter or shortening. Cover and set dough in warm place, free from draught and let rise until doubled in bulk. While dough is rising, combine

½ cup brown sugar (lightly pressed down)

1½ teaspoons ground cinnamon
½ cup washed and dried seedless raisins

¼ cup chopped candied peels

Punch down dough and divide into 2 equal portions; form into smooth balls. Roll each

piece into an oblong 24 inches long and 7½ inches wide; loosen dough. Spread each oblong with

2 tablespoons soft butter or margarine

and sprinkle with the raisin mixture. Beginning at the long edges, roll each side up to the centre, jelly-roll fashion. Flatten slightly and cut each strip crosswise into 10 pieces. Using a lightly-floured handle of a knife, make a deep crease in the centre of each bun, parallel to the cut sides. Place, well apart, on greased cookie sheets. Grease tops. Cover and let rise until doubled in bulk. Bake in moderately hot oven, 375°, about 18 minutes. If desired, cool and spread with confectioners' icing.



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by FLORENCE WEBB



Four Pot Holders

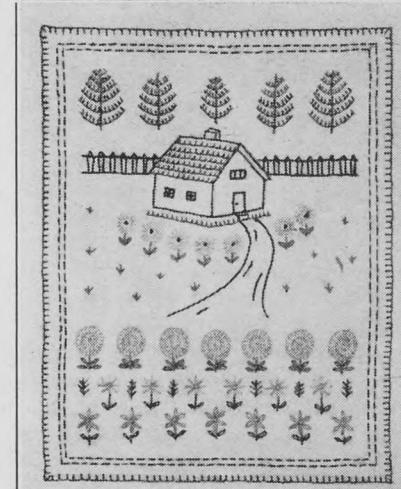
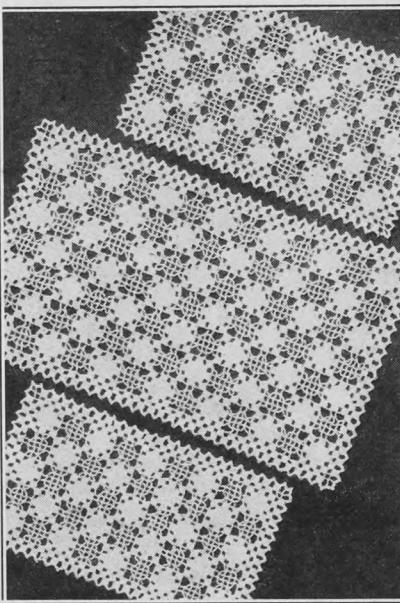
Design No. C-345.

An intriguing foursome—useful and pretty. Ideal pick-up work for picnics and outings. Make them of scraps and save them for that fall bazaar or copy your kitchen color scheme. Pattern is Design No C-345, and includes instructions for all four. Price 20 cents.

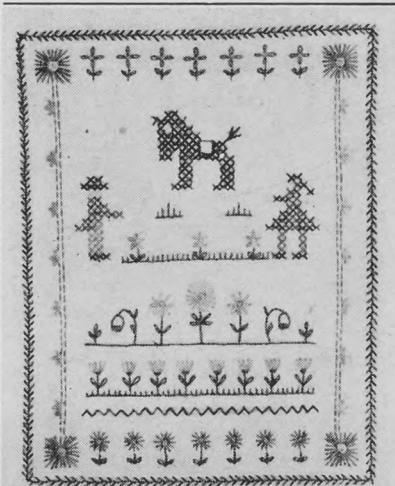
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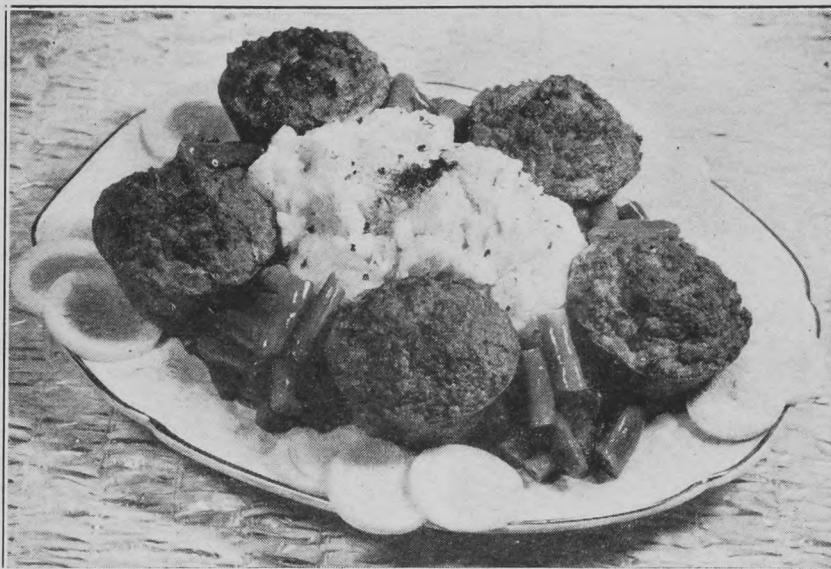
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An attractive pair of scuffers for your summer wardrobe. Made in an evening, they are ideal for packing and so easy to launder. We supply the white cotton for the slippers, stamped with the quilting and cutting lines, the bias binding, the wadding for padding and the instructions. Small sizes (5-6), medium (7-7½), large (8-9). Please state color choice for bias binding.

Design No. 702. Price 75 cents. Please state color choice for bias binding.

Salmon for Summer Meals

Economical, easy to prepare and nutritious, canned salmon makes an ideal hot-weather food



Serve salmon puffs with potatoes and a green vegetable.

EVEN on the hottest of summer days, men coming in from a hard day's work in the field will not be happy with a cold salad for supper. They want a hot and satisfying meal. The homemaker, however, does not need to spend hours in a hot kitchen preparing supper. Canned salmon meals are nutritious, hearty and quickly prepared; they may be hot or cold as desired, and, at the most, take but a short time to cook.

Colorful, nutritious and satisfying, canned salmon can be served in many appetizing new dishes. It can be extended in basic dishes such as souffles, scallops and casseroles; or combined with potatoes, rice, macaroni or in a chowder. It makes up into hearty one-dish meals appreciated by the hungry men folk and youngsters, and they are a boon to the busy housewife. It is delicious too in salads and sandwiches, and other cold plate meals.

Red salmon is the more attractive to use for making salads and with other uncooked foods. The pink salmon, however, looks as good, is more economical, and just as nutritious in hot salmon dishes. Both are rich in protein, the body building food. Add to this calcium and phosphorus, the builders of strong bones and teeth; iodine to help prevent goiter; and the vitamins A—to guard against infection, B₂—for growth and vitality, and D—the sunshine vitamin.

Salmon is one of the more versatile foods, and it is economical too. There is no shrinkage or waste as it comes from the can. A one-pound tin will serve four to six people—or more if you use an extender.

Canned Salmon Roll

2 c. flour	4 T. milk
4 T. shortening	1 T. chopped onion
1/2 tsp. salt	1 tsp. salt
1/2 lb. canned salmon	1/2 c. milk
4 tsp. baking powder	1 1/2 T. finely chopped parsley
1 egg	2 T. lemon juice

Sift together dry ingredients. Add shortening and blend mixture well. Beat egg slightly and add 1/2 c. milk. Roll out on a floured board. Mix the remaining ingredients and spread evenly over the dough. Roll up like a jelly roll and bake on a baking sheet in hot oven 425° F for 30 minutes. Serve with hot egg sauce.

Salmonburgers

1 lb. canned salmon	3/4 c. coarse cracker crumbs
1 small onion	1 egg
1 T. butter	Seasoning

Mix flaked salmon with cracker crumbs and slightly beaten egg. Sauté sliced onion in butter; add to salmon mixture; season. Shape six thin salmon cakes and brown quickly in butter. Split large buns and place hot salmon cakes between. Serve with dill pickles. Serves six generously.

Swedish Baked Salmon

1 lb. canned salmon	4 raw potatoes
salmon	2 T. olive oil
4 raw onions	Milk
2 T. flour	

Shred salmon, retaining juice. Place a layer of salmon in a buttered baking dish and sprinkle with a little flour and olive oil. On this place thinly sliced onion and on these, thinly sliced potatoes. Repeat for three layers. Add salmon juice and enough milk sufficient to cover the layers. Dot with bits of butter and bake slowly one hour. Serves six.

Canned Salmon Puffs

1 lb. canned salmon	1/2 tsp. salt
3/4 c. soft bread crumbs	1 T. lemon juice
	1/8 tsp. pepper
	3 eggs, separated

Flake salmon fine and add seasonings, crumbs and lemon juice. Add beaten egg yolks. Mix thoroughly, then fold in stiffly beaten whites. Place in custard cups. Set in pan of hot water and bake in medium oven for 40 minutes. Unmold and serve with a tartar sauce.

Salmon Fritters

1/2 lb. canned salmon	1 c. flour
1 T. salt	Salt
1 c. milk	1 egg

Season salmon well with salt, pepper and a little vinegar. Mix well with a fork. Spread generously between thin slices of buttered bread, trim off crusts.

Make a batter of the flour, eggs, milk and salt. Dip each sandwich into the batter; then fry in butter until crisp and a golden brown color. Garnish with sprigs of parsley. Serve hot.

Salmon Rice Loaf

1/2 lb. canned salmon	2 T. butter
1 large cupful rice	Juice of a lemon
1/2 c. milk	2 eggs
	Salt and pepper

Flake salmon and strain off liquor. Cook the rice and rinse in cold water. Mix salmon with rice and beaten eggs. Add salmon juice, melted butter, lemon juice, salt and pepper. Mix gently. Bake in oven in a covered casserole for one hour with moderate heat. Serves four.

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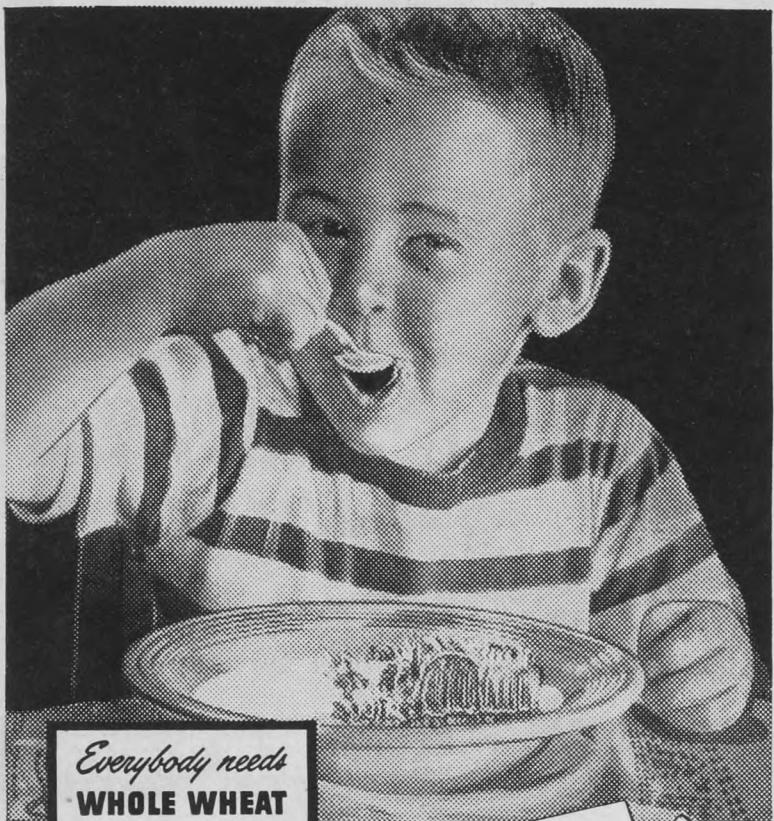
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**DID YOU "NUGGET" YOUR SHOES
THIS MORNING?**

Relax to Rest

Make up for sleep lost by definite periods of relaxation

by LORETTA MILLER



A restful appearance is personified in Jean Simmons, lovely movie star.

DID you rest well last night? Do you feel ship-shape today, ready to carry through, or does the afternoon find you tired and weary?

Sufficient sleep is important. The way you spend two-thirds of your life depends upon what you do with the other third, or approximately that proportion of it. One night of good sleep with complete relaxation fits one for whatever activities the day may bring. Everyone's sleeping needs vary, ranging from seven to nine hours. But whatever your personal requirement, try to get the hours of sleep necessary. You'll feel better, think faster and look years younger. Lack of sleep or rest dulls the thinking as it does the eyes.

Next to enough sleep, relaxation is important. If you've gone a pace all morning, and afternoon finds you weary (with still plenty of work to do), treat yourself to a quiet rest period. You'll make up for the time with renewed energy.

Have a bottle of witch hazel, rubbing alcohol or any stimulating skin lotion handy. Also have some cuticle oil or cream, a small bowl of ice or cool water and some little pads of cotton. Then lower the shade in your bedroom, remove all clothing that binds and take off shoes and stockings. Stand erect as you stretch to your full height, raising your arms skyward as you raise yourself on the balls of your feet. Then bring your arms down beside your body as you lower your heels to the floor. Repeat ten times. Then brush your hair at least fifty strokes. Brush upward and downward and finally brush back away from your face-framing hairline.

If you generally use a facial cream, it's well to make an application now, letting it remain on through your period of relaxation. If you are not a cream user, saturate a pad of cotton with witch hazel and rub and pat it lightly over your face and throat.

Next, pour some witch hazel or alcohol into a cupped hand and, beginning with your toes, massage the feet. Twist each toe gently, then hold the heel firmly with one hand as you use the other hand for grasping the forward part of your foot and rotating it first to the left and then to the right. Witch hazel is 14 per cent alcohol and is extremely soothing to feet that

feel uncomfortably snug in their regular size shoes. As an added treat to jaded feet, do this: cut or tear off little pads of cotton, saturate each with one of the soothing liquids and place a wet pad between each toe. Let these remain for the duration of your rest period. If the cuticle around your toe nails is hard, make a liberal application of cuticle oil or cream and let this remain on too.

NEXT, lie flat on your back. Place a small pillow under your ankles and do the following foot exercises: start with toes pointing straight up, and slowly rotate them to the right, then to the left, ten times in each direction. Return your toes to original position with toes pointing straight up and push down with your heels as you draw your toes up toward your body. Hold for a second, then reverse the movement and draw your heels toward your body as you point your toes down away from your body. Rest for a moment, then move the pillow up under your knees, letting your feet fall into any comfortable position. Be sure that your back and shoulders are well supported so that you won't slip into a careless position. Correct position is very important to complete relaxation.

If your shoulders seem to slump, place a small pillow at your back, just above your waistline. For those of you who are burning the workaday candle at both ends, and whose time is limited, this is a good time to give your fingertips a little care. It need not be a complete manicure, but cover cuticle with oil or cream, and massage a little lotion or cream over the hands. Or, if you find it more restful, knit, sew, or perhaps get caught up on some letter writing or reading. Perhaps you'd rather close your eyes and give yourself over to complete relaxation. If so, saturate pads of cotton with witch hazel or cold water and place them over closed lids.

A SMALL pillow shaped like a dumb-bell is ideal for giving the neck complete support while relaxing. Let your head hang over the pillow. Notice how the contours of the throat and chin seem to appear firmer and more youthful. This position actually rests the muscles through this region. Go through some exaggerated chewing exercises, if you wish, with your head in this position. It will help keep throat and chin youthful.

Don't rush through today's routine or you'll wind up exhausted. Take each step in your stride if you want to come out fully refreshed. You can apply every step of this routine leisurely. They are neither lengthy nor involved, and very few aids are necessary. A darkened room, and complete privacy, are necessary to one's complete relaxation.

I know it sounds almost too poetic, but it is important to know that one's thinking shows in her face. If you doubt this, look at any friend or member of your family the next time he or she is worried, angry, sad or glad. So give yourself over to pleasant thoughts, or mentally listen to your favorite song. It will pay big dividends in a more rested appearance.

August Features



718

No. 718—Circle skirt set with pattern for both blouse and skirt. Skirt is cut in four pieces, forming a circle that flatters movement. Sizes 10, 12, 14, 16, 18 and 20 years; 34, 36 and 38-inch bust. Size 16 blouse requires 1½ yards 35-inch fabric; skirt: 4 yards 36-inch fabric. Price 35 cents.

No. 687—Dressy ensemble consisting of dress with a curved camisole bodice, pleats in skirt and jacket with tiny collar. Sizes 12, 14, 16, 18 and 20 years; 34, 36, 38 and 40-inch bust. Size 16 requires 3¼ yards 35-inch fabric; ¼-yard 35-inch contrasting fabric. Price 35 cents.

No. 698—Adaptable style either for wear at-home or as a "summer sunner." Perfect for using contrasting fabric. Sizes 11, 13, 15, 17 and 19 years; 33, 35 and 37-inch bust. Size 13 dress with collar requires 2½ yards of 35-inch fabric and 1½ yards 35-inch contrasting. Price 25 cents.

No. 699—Side-lined basic dress to be made in 'most any fabric and to be worn on many occasions with varying accessories as fits your mood. Sizes 10, 12, 14, 16 and 18 years; 34, 36 and 38-inch bust. Size 16 requires 3¾ yards 35-inch fabric and a leather belt. Price 25 cents.

No. 722—Playtime dress for small miss who loves ruffles 'n frills. Make in good washfast cotton if for play use. Sizes 4, 6, 8, 10 and 12 years. Size 8 requires 3½ yards 35-inch fabric; 7 yards ruffling. Price 25 cents.

No. 716—Party frock for gala young affairs, teas, graduation, weddings and such. Neckline, puffed sleeves and flounced skirt will delight the young heart. Sizes 4, 6, 8, 10, 12 and 14 years. Size 8 requires 3½ yards 39-inch fabric. Price 35 cents.

No. 694—Bathing suit on figure-flattering lines with panties attached. Sizes 10, 12, 14, 16, 18 and 20 years; 34, 36, 38 and 40-inch bust. Sizes 16 requires 3¾ yards 35-inch material and ¼-yard 35-inch lining. Price 35 cents.

Hollywood Spring and Summer Fashion Book — beautifully illustrated, contains almost two hundred styles suitable for every occasion. Fall and Winter Fashion book will be ready September 15. Designs are attractive, up-to-the-minute, practical and easy to make. Price 35 cents.



687

No. 691—Scroll trimming can be feature of frock which is draped high over one hip for added fashion emphasis. Sizes 12, 14, 16, 18 and 20 years; 34, 36 and 38-inch bust. Size 16 requires 3¾ yards 39-inch material and 3½ yards binding. Price 35 cents.

Be sure to state correct size and number of pattern wanted.
Write name and address plainly.
Note the price of each pattern.
Address orders to The Country Guide Patterns, Winnipeg, Man.



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722



716



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691

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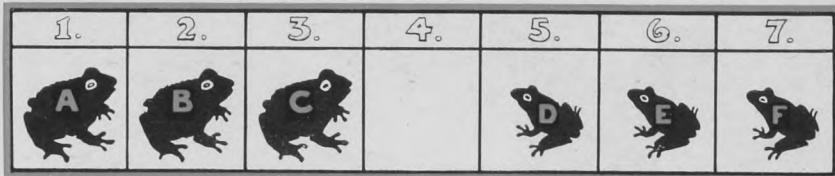
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The Country



AUGUST is a happy, busy month for everyone on the farm. The harvest is in full swing, and the chores must be done as usual. There are jaunts into the woods to look for berries to be preserved and kept for the winter. You may have had a friend visiting with you on the farm during the holidays. Now many of you begin to think that school time is coming very soon. Everyone is on the go from early morning until late at night.

We have a very interesting puzzle for you this month, one to practise up quite a few times before you try to show anyone else just how to do it. In the diagram you will see three large frogs on the left and three small ones on the right with one vacant space between them. The puzzle is to see if you can move the three big frogs over to the right and the three small frogs over to the left. The frogs must move only one at a time and must leap one space or over one frog at a time. They must not move or leap unless they are able to land on a vacant space, but they may move in any direction. Try this out by cutting out the frogs and making for yourself another sheet of paper with seven squares as shown for your frogs to leap around on. Arrange your frogs as shown and begin. Here are the moves:

1. Move D to space 4.
2. C jumps D into space 5.
3. B moves to space 3.
4. D jumps B into space 2.
5. E jumps C into space 4.
6. F moves into space 6.
7. C jumps F into space 7.
8. B jumps E into space 5.
9. A jumps D into space 3.
10. D moves into space 1.
11. E jumps A into space 2.
12. F jumps B into space 4.
13. B moves to space 6.
14. A jumps F into space 5.
15. F moves into space 3.

Ann Sankey

The Magic Doll

by MARY E. GRANNAN

IT was Katy Mary's birthday, and Katy Mary was very happy. She had received many presents. Her mother and father had given her a tricycle. Her Aunt Katy had sent a book of fairy tales. And now, with her book under her arm, and riding her new tricycle, Katy Mary was on her way to Miss Merryweather's toy shop.

Miss Merryweather had promised to make a rag doll for Katy Mary, and Katy Mary was to choose the kind she would like best.

As the little girl went into the shop, the old lady sang,

"Happy birthday to you,
Happy birthday to you,
Happy birthday Katy Mary,
Happy birthday to you."

"Thank you, Miss Merryweather, and it has been so happy, and it's going to be happier. I've been thinking about my rag doll all night, Miss Merryweather, and she's going to be pink. She's going to have a pink bonnet and pink dress and pink pantaloons, and she's going to be magic."

The old lady laughed. "Well now, I can arrange for the pink bonnet and dress and pantaloons, but I don't know about the magic. Do you know how to weave magic, Katy Mary?"

"Oh yes," said Katy Mary, "you sing magic words while you're making her."

Miss Merryweather laughed again. "Then I shall try to make her a magic pink doll. We'll call her Rosy. And," said Miss Merryweather with twinkling eyes, "because her name is Rosy, I shall put some rose perfume on her stuffing, so that she will smell like her name."

Katy Mary was delighted with the idea, and went off to ride her tri-

cycle, so that Miss Merryweather could work on the doll without interruption.

Now neither Miss Merryweather nor Katy Mary knew that while they were talking of rose perfume upstairs, a little mouse downstairs in the cellar was talking of rose perfume too. The mouse, whose name was Alfred, had promised his little wife Jennie that he would get her whatever her little mouse heart desired for her birthday.

"Perfume," said Jennie, "rose perfume. That is what I would like to have."

"All right," said Alfred, and boldly went up the water pipe, into Miss Merryweather's kitchen. From there he went to the bedroom. He knew that was where ladies kept their perfume. On any other day he would have been right. But today, Miss Merryweather's perfume was in the shop, where she was going to use it on Rosy.

Alfred searched everywhere in that bedroom. In the late afternoon, almost discouraged, he smelled the fragrance of roses coming from the shop below. Miss Merryweather had just removed the stopper of the bottle, and had poured a generous amount of the scent inside of Rosy. She was about to sew up the last seam on the pretty pink doll, when her phone rang. She went to answer it. Alfred scampered past her and with his nose wrinkling, he made straight for Rosy. His beady eyes widened. "Well upon my long tail!" he said to himself. "The perfume is inside this doll. I'll just go in." He did. The stuffing in Rosy was warm and soft, and the smell of the roses was heavy. Alfred fell asleep inside the doll.

Of course Miss Merryweather did not know that, and when she came back from the telephone she sewed

Boy and Girl

up the last seam, fluffed out Rosy's lovely pink dress, and called Katy Mary.

"Oh, Miss Merryweather," cried the little girl. "She's lovely. Hello, Rosy. Are you magic?"

"I'm afraid she's not magic," said Miss Merryweather, "but she is pretty."

"She's beautiful," said Katy Mary. And I'm going to give her the biggest squeeze in the world."

She hugged Rosy so tightly, that Alfred, inside in the stuffing, awakened, and squealed. Then he tried to jump. Rosy leaped from Katy Mary's arms and went bouncing blindly around the floor.

Miss Merryweather cried out in alarm. "Oh, dearie me, dearie me! I don't like this. Open the kitchen door and let that bouncing creature out of here."

An amazed Katy Mary did as she was bade. She opened the kitchen door, and Rosy bumped toward the water pipe. Katy Mary roared with laughter. "Look, Miss Merryweather, Rosy is trying to get down the water pipe. She isn't magic, she has a mouse inside of her. Where are your scissors?"

Katy Mary snipped the side seams and out jumped a bewildered Alfred and disappeared in a flash down the pipe.

"Now I wonder," said Miss Merryweather, "how that mouse ever got inside of Rosy?"

But what I wonder is this: Did Jennie get perfume for her birthday?

Paper Parachute Fun

YOU can have fun galore flying tiny paper parachutes.

To make one of the flyers get a piece of tissue paper eight inches square. Reinforce the corners with little pieces of Scotch tape about half an inch square. Then, with a needle attach a ten-inch length of cotton thread to each corner of the parachute. Make sure the threads are exactly the same length before tying the free ends together and attaching to them a small weight such as a screw or an old key.

The parachutes are so easily made that you can turn out quite a number all at the same time. Use different pieces of colored tissue paper so that the chutes can be identified when up in the air. The idea is to get in competition with two or three of your pals and see who can launch a parachute that will fly the farthest.

There are three ways to give the chutes sufficient altitude to be caught by the breeze and carried away. One is to launch them from a high window or the top of a building. The other two methods are the most practical for the purpose of a parachute race. By the use of a light fishing rod or bamboo pole the chute can be pushed upwards to a good height if the parachute is placed on top and the pole is projected vertically into the air. Don't forget to dodge the falling pole though if you use this method.

Another way to give the parachute altitude is to place a small stone in the center of the tissue paper eight-

inch square and then throw the stone in the air so that it carries the parachute with it. The difficulty of this method is that sometimes the stone refuses to part company with the parachute.

After a little preliminary experimenting and practice, arrange a parachute long distance flying test. Use red, blue, yellow and white tissue paper. Get out in a good big open space on a day when there is a brisk breeze. Have each contestant launch his parachute by his own favorite method and see whose flies the farthest.

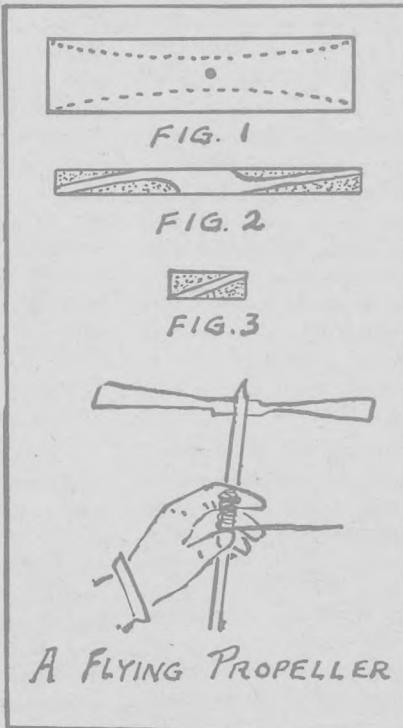
There is one game where indoor preparation helps provide for the outdoor fun. Have a whirl at it. Parachute flying is delightfully different.—Walter King.

A Flying Propeller

THIS wooden flying propeller is made from a piece of wood six inches long, one inch wide and one-quarter inch thick.

First drill a small hole in the exact center. Then, with a sharp knife carefully cut away the sides as shown in the shaded portion (Fig. 1).

Now cut out the wings of your screw propeller by cutting the wood from the upper and lower corners as shown in figures 2 and 3. The tips of the wings, you will notice, run diagonally across the end view pieces. Draw the cutting lines with pencil first before starting to carve out your propeller blade.



A FLYING PROPELLER

Finally, mount your six-inch propeller on a round wooden stick or pencil six inches long and about one-quarter inch in diameter. If the end of your stick is sharpened off you can hammer it quite firmly into the hole in the center of the propeller.

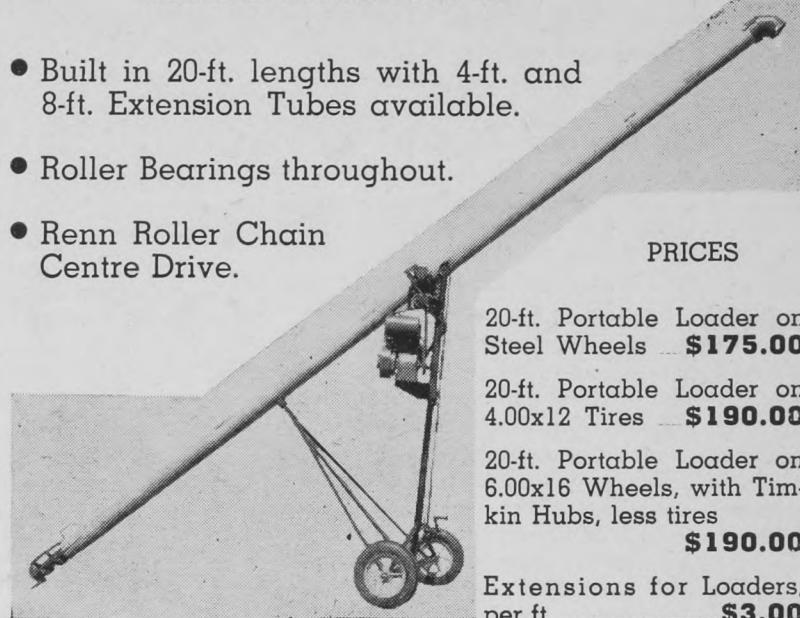
To start the toy flying, twist a piece of string around the spindle. Hold the propeller in the position shown between thumb and fingers, draw the string with your free hand rapidly toward you, and away goes the flying machine to a great height.

This, of course, is an outdoor amusement.—Walter King.

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THE NOR'-WEST FARMER and FARM and HOME
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VOL. LXIX WINNIPEG, AUGUST, 1950 No. 8

The End Of An Era

What must have been the largest throng of mourners ever to assemble in Canada paid homage on July 25 to the last remains of William Lyon Mackenzie King. For eleven hours a never ending stream of fellow Canadians filed silently by his bier as he lay in state in Ottawa's Hall of Fame.

For nearly a third of a century Mackenzie King was a dominating figure in the political life of this nation. His years of leadership have seen profound changes, and his influence was often paramount in the direction which those changes took. When he first assumed office he was surrounded by a coterie of brilliant colleagues. There was some doubt whether he could hold his place among them, but bit by bit he established ascendancy over them all. His contest with Lord Byng, Governor-General in 1925, showed his firm grasp of constitutional principles. No other Canadian could have made the glare of this issue dim out the charges of malfeasance levelled against one of his ministers. No other politician could have forged a weapon for electoral victory out of a situation from which his party had every reason to expect a sojourn in the wilderness.

But his crowning achievement was in peacefully yoking French and English Canada together for the long period of World War II. There were mutterings in English Canada for his alleged half-hearted prosecution of the war in its early years, but his severest critics will now admit that a more aggressive policy would have brought about a repetition of the Borden-Meighen excesses of 20 years earlier. Mackenzie King led his party to incomparable strength through an identical situation which brought boos from English speaking troops at Borden personally, and the ruin of his party in French Canada.

Canada lays its great leader to rest in the same month that the democratic world takes a sharp turn off the beaten path of national sovereignty into the uncharted perils of collective security. It may well be termed the end of the Mackenzie King era.

Words Must Not Outrun Deeds

The defence of Southern Korea has proceeded as well as could be expected and UN commanders on the spot express their confidence in eventual success. But the Korean fighting is not a detached irruption of ambitious native leaders. It is another step along the Communist road to world domination. At some stage the Russian timetable had to be broken into. History will say whether Korea provided the proper moment.

At this juncture the free world can take note of this new confirmation of the fact that an aggressor enjoys a tremendous advantage in modern warfare because he can stealthily assemble, over a period of months, the vast quantities of munitions and supplies necessary to strike quickly and support the attack before the defender recovers from the first shock. Civilians were disturbed to discover that it takes 250,000 tons of deep sea shipping to transport one American armored division to Asia. The North Korean army was estimated to contain 15 divisions at the commencement of fighting, each one, to be sure, smaller than an American division. Nevertheless, to have matched the North Korean army with western troops would probably have required more tonnage of certain types of ships than could have been collected in all the ports of the world on such short notice, even if trained troops and battle-worthy equipment could have been picked up immediately.

The UN decision on Korea seems to commit the free world to combat Communist aggression where-

ever it may break out. The whole Soviet fringe is a series of sally ports from which the Korean stroke may be repeated. Nowhere along this whole perimeter is western unpreparedness more apparent than in western Europe, for the relatively small armies of France, Britain and Holland all have sizable detachments in southeast Asia actively engaged in suppressing Communist, or Communist-inspired outbreaks. The problem of the free nations now is to give the Americans what support they can in Korea without weakening the common front elsewhere.

The decision of the Canadian Government not to release its one trained airborne brigade was sound militarily. Because of its high degree of training for Arctic warfare, it must be one of the most valuable forces of its size in the free world, and should not be squandered for service which other ground troops can perform. That, unfortunately, is not the last word for Canada. Diplomacy cannot outrun military power, and if Canada is determined to uphold the viewpoint of united democracy as it has repeatedly professed to do, it cannot escape its obligation to contribute its share of military effectives. This nation has either spoken too boldly at Lake Success, or too timidly in response to Trygve Lie's call to arms.

A Deadline Reached

As the closing date for the operation of the British wheat contract passes amid a welter of claims and counter-claims, it seems necessary for The Guide to make the following points.

In spite of the hardy controversialists who insist that the British wheat agreement did not involve farmers in any loss, it is generally admitted that there was a loss somewhere between Mr. Gardiner's reported estimate of \$75 millions and the \$400 millions estimate of the chief opponents of the agreement.

In the second place the responsibility for the agreement rests on the government of the day, and on it alone. Hansard of August 18, 1946 (page 4884) records that two days before it was signed the representatives of the farmers' organizations were informed of its provisions at a meeting in the office of the Minister of Trade and Commerce. They were not asked for advice on the terms it should embody, mark you, but were told what had been arranged.

At the time of these discussions the farmers' representatives made it clear to the ministers in attendance that what they wanted above all things was price stability over a period of time. In the early years of the contract there is no doubt that the majority of grain growers supported the agreement, and they supported it because it promised price stability and because they were led to believe that the "have regard to" clause would fully compensate for early underpayments when the closing years of the contract were reached.

Admitting a loss, and admitting the government responsibility for the terms of the contract which brought about that loss, it seems reasonably clear that the producers who have had to bear it have some claim on the government. It does not lessen the force of that claim to say that farmers generally, or their leaders, supported the agreement till a very recent date, for that support was given on an assumption now known to be ill-founded, but which persisted because of active government encouragement.

The Winnipeg Free Press has gone to great lengths to indict the representatives of the leading farm organizations as the instigators and champions of the agreement, thereby minimizing the responsibility of the government. Officials of the provincial pools will speak for themselves. The attitude of the other farmers' company which was alleged to have had some foreknowledge of the contract is contained in its 1946 annual report issued shortly after the British contract came into force. It states (pages 22 and 23):

"The arrangements (for the sale of wheat) now in effect should not be regarded as representing a permanent policy. They must rather be considered both as temporary and experimental. . . Only later can it be determined whether or not it (the

British contract) has worked to the advantage of wheat producers."

"It should be stated that the Canadian Federation of Agriculture was not consulted, neither was your Company directly or indirectly consulted, in advance with respect to the terms of the contract. True, both this Company and the C.F.A. were on record as urging the Government of Canada to participate in negotiations for a general international wheat agreement. . . That, of course, would be something quite different from the contract for sale actually made with Great Britain.

"Your Company accepts no responsibility for the price arrangements actually put into effect by the government. . . The question to be determined on the basis of experience is whether or not such arrangements as are now in effect will meet with the permanent approval of producers."

It was a reasonable policy of suspending judgment till all the evidence was in. From this position that organization has never departed. It refrained from criticizing the agreement during its life, as did the majority of farmers, from a desire not to embarrass the administration, and in the confident expectations that Mr. Gardiner's anticipated overall settlement at the end of the period would be made. Such an attitude on the part of that company, and of the farmers who acted in like manner, is entirely consistent with the advancement of a present claim for compensation for the growers concerned.

Farm Machinery Rate Up

The Transport Commission is very rapidly earning for itself the strongly worded condemnation of the farm organizations that fell upon its predecessor, the Board of Railway Commissioners in the early '20's under the chairmanship of Hon. F. B. Carvell.

Since the spring of 1948 successive general freight rate increases have boosted the maximum rates 45 per cent. Not all shippers have to pay them, as is well known. In eastern Canada, where road and water competition prevail, the railways are free to put into effect rates less than the maximum, while the western shipper, without benefit of competition, bears the full burden.

As though this discrimination were not sufficiently serious, the Board has now authorized a still further increase which falls on the users of farm machinery. It has restored the sixth class rate on farm machinery in place of the special commodity rates which have applied on such traffic since the spring of 1919. The effect of this ruling added to the general rate increases above noted, raises the freight rate on implements an estimated 77 per cent in a little more than two years, in which time the price index for what the farmer has to sell has actually dropped. Even the old Board under Mr. Carvell, which roused the farm organizations to anger at the close of World War I, did not aim its shafts so directly at western agriculture.

Self Accused

The Guide often wonders what variety of myopia affects those rugged individualists who are horror struck at the idea of government controls imposed on industry for the protection of the general public, and at the same time find no harm in controls imposed by industry on itself for its own benefit and in complete disregard of the consumer.

A Detroit baker was recently haled into court and charged with unfair competition. His "crime" was selling loaves four ounces heavier than his competitors for the same price. Not long before that an Alberta baker testified in court that he had been warned that other organized bakers would not "let him go on forever" selling his bread below the standard price.

In the words of the Toronto Globe and Mail, whose attitude in matters of this kind cannot be impugned, "free enterprise is being steadily riddled with controls imposed by itself." But it needs all the friends it can marshal in these days of widening governmental activity. Is it possible that the people who are guilty of stifling healthy competition cannot see that their policy is alienating the sympathy of that large class of consumers who have no doctrinaire views about private enterprise, but who understand perfectly well the effect of these restrictive practices on their standard of living?



A Crest and its Meaning

CANADA is a nation composed of many races and cultures, yet collectively one in union and strength . . .

More than 40,000 farmer shareholders—also of many races and cultures—comprise United Grain Growers Limited, Canada's oldest farmer co-operative. Inscribed on the Company's crest is this significant motto for all Canadians: "In Union is Strength."

"In Union is Strength" has time and again proved its worth as a practical democratic motto for a working program of successful achievement. In the 45 years of its operation over 11 millions of dollars have been distributed by this pioneer farmer co-operative in dividends to its members and grants to aid western agriculture—a record without parallel in the history of the organized farmer in business.

But far more important, *trading principles have become firmly established which are today the accepted charter right of the individual farmer*: the right to participate and share in the responsibilities and benefits of a democratically controlled and co-operatively owned business; to deliver grain to the elevator of his own choice; to purchase co-operatively such commodities and services as coal, flour, salt, Money-Maker feeds and concentrates, binder twine, oils, greases, Weedone 2,4-D, Warm Morning heaters, Insurance, and many others.

It should ever be remembered by the individual farmer that these vitally important principles took long years of struggle, risk and personal sacrifice to establish and that they were only confirmed in the teeth of bitter, relentless and often ruthless opposition of the special-privilege interests of those early days operating under the protection of the laws of our land.

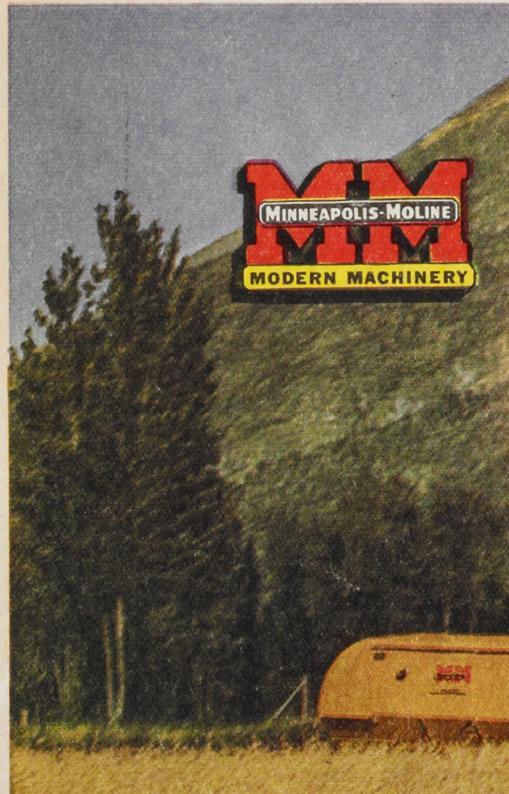
"In Union is Strength" eventually won through. The laws of our land unfairly affecting the farmer were changed. Peace in agriculture, as far as fair and equitable trading principles were concerned, was finally and firmly established on a sound, enduring foundation. No one today questions the justice and fairness of the principles fought for nor the incalculable value to western agriculture of the victories won by those early pioneer farmers who constituted Canada's first farmer co-operative which is today United Grain Growers Limited.

The motto on the U.G.G. crest is quite as important to all farmers today as it was 45 years ago. Now, as then, unity is the price of survival and progress. Every load of grain delivered and every purchase of supplies made at U.G.G. Elevators and distributing points helps to maintain and progressively extend the benefits of "Service and Savings" to farmers pioneered by those history-making old timers who selected as the motto for their crest "In Union is Strength."

UNITED GRAIN GROWERS LIMITED

CANADA'S OLDEST FARMER CO-OPERATIVE

The HARVESTORS



MM
MINNEAPOLIS-MOLINE
MM
MODERN MACHINERY

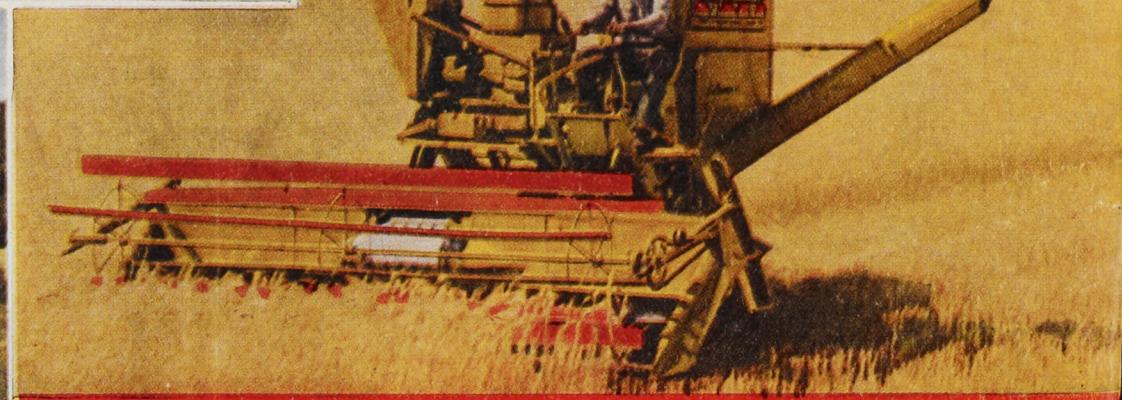
WITH THE FEATURES ALL FARMERS INSIST ON

The proven dependability of MM HARVESTORS in heavy crops, down grain, light stands, and under all field conditions, stems from many exclusive and outstanding features such as: **EXCLUSIVE CYLINDER FEED**—unthreshed grain is spread out by the feeder conveyor, two beaters, and metal curtain before delivery to cylinder. This stops slugging and uneven feeding, and gives highest threshing results . . . **MM RASP-BAR CYLINDER and ONE-PIECE WELDED CONCAVE and GRATE** provide a positive rubbing action, similar to rubbing out grain between your hands, without cracking the grain or breaking the straw and weeds to bits . . . **EXCLUSIVE GRAIN PAN DESIGN**—fishback channels and a steep 8-inch

drop from grate to cleaning shoe prevent bunching of grain at sides or ends on rolling land . . . **CLEANING SHOE** is **AUTOMATICALLY LEVEL** and always in its best cleaning position regardless of the tilt of the HARVESTOR.

The HARVESTORS are of single unit construction balanced over the main axle for easy pulling and handling. MM HARVESTORS are durably built to last for years . . . upkeep costs are always low . . . breakdowns in the field are almost unheard of. New **UNI-MATIC POWER** gives instant hydraulic control of cutting heights on the go. MM HARVESTORS are designed and built to get all the crop under all combining conditions and always at lowest possible cost.

Ask your MM Dealer to give you all the facts about MM HARVESTORS, VISIONLINED TRACTORS, POWER UNITS, and other MM machines.



MINNEAPOLIS - MOLINE
of Canada, Limited

Regina, Sask.

Winnipeg, Man.

DISTRIBUTORS

Marshall-Wells (Westminster) Ltd.
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